

STATE AUDITOR'S OFFICE PERFORMANCE AUDIT



Department of Printing Printing Services

April 25, 2011

Report No. 1004989



WASHINGTON
BRIAN SONNTAG
STATE AUDITOR

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A MESSAGE TO THE CITIZENS OF WASHINGTON

Citizens of Washington:

This report contains the results of an audit we conducted of the State Printer to examine whether the state-owned printing operation was a relevant core function of government and to determine how the state can most efficiently meet its printing needs.

With state government facing significant financial challenges, questions have again been raised on what the state should do and can afford to do. These questions led our Office to look at several various programs and functions, including the Department of Printing.

We concluded that a state-owned print shop is not a core function compared with educating children and providing for the health and safety of Washington citizens. But printing is a necessary support service to help state agencies prepare and distribute public information.

The emphasis of the audit was on the economy and efficiency of state printing needs. We identified several options to make state printing services more efficient and to improve services. Among them:

- Allow private printing firms to compete directly with the Department of Printing for jobs sought by state agencies rather than requiring those agencies to use the State Printer's services.
- Consolidate 10 separate print shops operated by other state agencies and sell or cancel leases on the equipment, much of which is underused.
- Launch an aggressive effort to reduce the nearly \$40 million cost of using office copiers and desktop printers throughout state government. The state, for example, should ensure its work force shares that equipment.

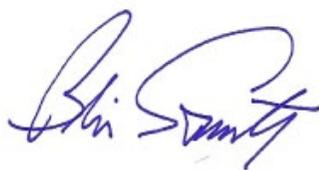
Certainly, desktop publishing and other technology have changed the nature of printing since the State Printer was established 78 years ago. And the same printing services are available from private businesses.

We examined the option of eliminating the Department of Printing and turning to private companies for all state printing materials. But we concluded that — other than bringing in one-time revenue from selling the equipment — there is little clear cost savings to be gained. We found that private printers do not necessarily charge lower costs than the Department of Printing in all situations.

Privatizing printing services is a policy option that should be considered in any discussions of reducing state government's size and overall footprint.

We continue to be proud that our work on this and other audits provide value to the citizens of Washington and contribute to the Legislature's deliberations and budget decisions.

Sincerely,



BRIAN SONNTAG, CGFM
WASHINGTON STATE AUDITOR



The State Auditor's Office Mission

The State Auditor's Office independently serves the citizens of Washington by promoting accountability, fiscal integrity and openness in state and local government. Working with these governments and with citizens, we strive to ensure the efficient and effective use of public resources.

EXECUTIVE SUMMARY

Why we did this audit

In our 2009 State Government Performance Review, we asked whether certain activities were core functions of government and, if not, whether they could be scaled back, eliminated or transferred to the private sector.

Printing services were contracted with private printers from the 1850s until the state printing agency was established in 1933. Today, state agencies meet many of their printing needs by using office-based equipment such as computers, desktop printers and copiers. Several state agencies have also established their own in-house print shops.

Today's printing environment is complex and changing rapidly, and our audit reflects that reality. Businesses and governments are using many strategies to reduce print volumes and spending. Washington State should do the same, employing every strategy proven to reduce costs and deliver effective services, including assessing whether the work should even be done by a government agency.

We conducted this audit to evaluate the Department of Printing's progress in addressing the options we identified in the 2009 review and to develop recommendations for improving efficiency and reducing costs for all state printing services.

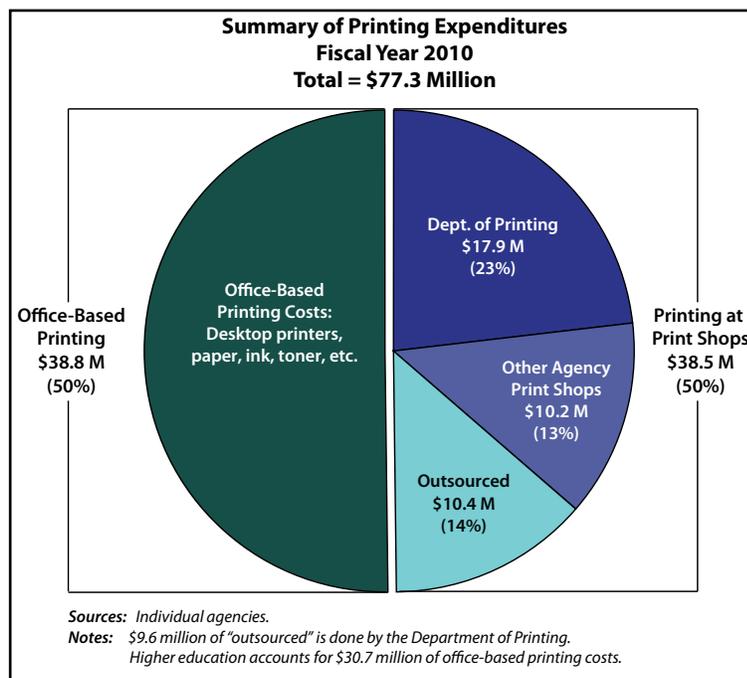
Is printing a core function of government?

We don't think so. In our view, printing does not have as high a priority for public investment as services such as public health and safety, education or the protection of vulnerable children and adults. Technology provides less expensive alternatives to printed documents, and printing services are readily available in the private sector.

However, it is important to understand that state government agencies will continue to have some need for printing at least some documents on paper, such as licenses and registrations, workplace regulations and reports. Communicating with citizens and the people served by government programs is a critical function of government, and all forms of communication are vital to keeping those channels open.

Even if the Department of Printing and agency print shops were eliminated, state government would still incur costs to purchase print services. Furthermore, state government programs collectively represent a high volume of printing business. Washington should not lose the ability to manage that business for high-volume discounts or to make other strategic investment choices. And the state must examine all options carefully, to avoid higher hidden costs for state services — costs that are ultimately borne by the taxpayers.

Our central audit question was not whether to privatize printing. The more fundamental question was this: How to reduce what the state pays for printing overall.



The Department of Printing's fiscal 2010 revenue was \$27.5 million. When the costs of agency in-house print shops, outsourced print projects and office-based or "desk-top" printing were included, the state spent more than \$77 million, as shown in the chart on page 4. That's quite a difference, and it led us to focus on **how to reduce overall costs** as the primary objective of this audit.

Specifically, we asked:

- Can changes be made to the Department of Printing's current business model that would lower printing costs and/or improve printing services to the state?
- Can statewide printing costs be reduced through the use of new technologies, consolidation, contracting with private printers, or by using leading practices from the printing industry?

To answer these questions we reviewed the Department of Printing's business model, other agencies' in-house print shops, outsourced printing and office-based or desk-top printing. We also interviewed printers in other states and organizations to identify leading practices that could provide opportunities to reduce costs here in Washington.

Would the state save money by outsourcing all print jobs to the private sector?

We reviewed three separate price comparisons between the Department of Printing and other private and public printers and the results were inconclusive. We found a lack of robust pricing data in general, but using the most recent and relevant data we concluded that the Department's prices were lower than those of other printers on some jobs and higher on others. Private printers' prices were not consistently nor significantly lower; nor were the public printer's.

We also considered factors other than price, such as customer satisfaction. We included eight state agencies that represent Printing's customers in this audit, as well as 10 agencies who have their own in-house print shops. Customer agencies expressed mixed views of the Department's pricing and effectiveness. Some were very satisfied but others questioned whether its prices were too high and said they wanted the authority to solicit bids on all jobs from private printers and the Department.

We also looked at the experiences of other states. Nevada, for example, found that giving public and private printers the opportunity to compete for all jobs spurred the public printer to improve its service and efficiency while moderating prices in a competitive market.

Competition, streamlining and managing our print resources will yield cost savings.

In the end, we concluded that competition, not privatization, is the most important factor in keeping prices low. We recommend increasing competition by changing state laws to allow private shops to compete with the state printer for **all** state jobs that require a print shop. Current state law requires most agencies to use the Department of Printing, and several

agencies operate their own print shops. In this environment, relatively few projects are sent out for competitive bids, and the state pays for many jobs without knowing what private printers would have charged.

We further recommend a statewide strategy to track and reduce printing costs. This statewide strategy could include:

- Reducing, consolidating and coordinating the in-house agency print shops. We found that 80 percent of digital printing equipment in the agency shops was underused. Coordinating and consolidating those resources should save the state about \$2 million every year.
- Managing a competitive purchasing process to track and compare costs for outsourced and in-house print jobs, and to seize opportunities for high-volume discounts. We estimate the state could save up to \$1 million through increased competition.
- Reducing costs for desktop and office-based printing equipment and supplies, which now constitute half of the state's total printing budget. We estimate potential savings range from \$3 million to \$11 million per year. These print management strategies should be required **regardless** of whether state government preserves its own print shops.
- Discouraging printing in favor of more economical and environmentally friendly options for communication, including strategies used by other states for paper reduction, utilizing electronic technologies and other leading practices to contain printing and paper costs in Washington.

Ultimately, the question of whether to eliminate the Department of Printing and the agency print shops involves philosophical as well as financial considerations. But that option would not necessarily produce the greatest savings to state government.

Audit results

We identified several key results:

- **The state spent about \$77.3 million for printing in fiscal year 2010**, including \$17.9 million at the State Printer, \$10.2 million at the agency print shops included in this audit, \$10.4 million in outsourcing printing work, and \$38.8 million to support office-based printing.
- **The Department of Printing made several changes following our 2009 review to stabilize its financial condition.** In response to rapidly falling revenue, the Department reduced its work force from 124 to 97 full-time equivalent (FTE) positions, closed three of its six copy centers and stabilized its cash flow.
- **The state is not receiving the full benefit of an increasingly competitive printing marketplace.** State law limits the Department's operating flexibility and often prevents state agencies from obtaining competitive bids from private printers. In this environment, it is impossible to determine whether privatizing all printing services would reduce costs.
- **The presence of independently operated state agency print shops** contributes to inefficiency and unnecessary duplication of services.

- **Much of the equipment at the Department of Printing and agency print shops is substantially underused.** We evaluated 64 pieces of production printing equipment and found only 12 devices were used at more than 50 percent of capacity.
- **Nearly half of the state’s printing expenses are for equipment and supplies to support office-based printing, such as paper, ink and toner.** The state lacks a management strategy to contain these costs.
- **Overall, Washington is using relatively few of the effective practices** that other states employ to hold down costs by promoting competition between public and private printers; consolidating print shops and copy centers; and cutting costs for office-based printing equipment and supplies.

Summary of recommendations

We recommend state lawmakers and executive and legislative agencies take several actions to reduce costs, increase competition among printers, improve efficiency and build a foundation for long-term cost containment. Potential annual cost savings from these actions are shown on **Page 8**.

Allow private printers and the Department to compete for all jobs

1. To establish a more competitive environment and provide assurance to state agencies that they are receiving a competitive price, lawmakers should allow state agencies to obtain bids from private vendors and should require them to solicit bids from the Department of Printing for all jobs that require the services of a print shop. Agencies could then select the lowest-cost responsible bidder that meets the agency’s business needs, including timeliness, quality and other requirements. This approach would require the Legislature to eliminate the Department’s “right of first refusal” that frequently prohibits agencies from seeking multiple bids.
2. To enable the Department of Printing to compete effectively, lawmakers should permit the Department to set its own prices for individual jobs with the overall goal of achieving long-term financial stability. Currently, state law contains a price cap that makes it difficult for the Department to consistently recover production costs.
3. To ensure its competitive bids are reasonable, the Department should regularly update its budgeted hourly rate model to accurately reflect operational costs.

Reduce the number of print shops to cut costs and duplication

4. To reduce duplication of services, streamline coordination and management of printing services and minimize long-term costs, the Office of Financial Management should direct WSDOT, Employment Security Department, Department of Social and Health Services, and Department of Labor and Industries to consolidate their printing equipment and staff with the Department of Printing. We also recommend that the Legislative branch, Office of Superintendent of Public Instruction, and Attorney General’s Office consolidate printing equipment and staff with the Department of Printing. This would allow the state to better coordinate statewide printing, take advantage of any existing efficiencies

at agency print shops, and align equipment and staffing with statewide demand. While some excess capacity is desirable at the Department to accommodate normal fluctuations in demand, the current level of duplication is unnecessary.

Adopt statewide cost-containment strategies

5. The Office of Financial Management (OFM) should develop a strategy to meet printing needs across state government in an increasingly digital environment. To hold down print shop costs, we recommend OFM develop uniform criteria to help agencies determine when to seek competitive bids from public and private printers and how to evaluate those bids.
6. To improve the efficiency and minimize the costs of all printing services, OFM should ensure its strategy addresses paper reduction, utilizing electronic technologies and other leading practices to contain printing and paper costs in Washington. We recommend the Office of Financial Management establish rules and guidelines for all state agencies to reduce expenses for such items as desktop publishing computers, copiers, printers, paper, ink and other printing supplies. At a minimum, OFM should require all state agencies to use “managed-print” strategies as described in this audit to track, manage and reduce office-based printing output and costs.

Summary of Potential Cost Savings after Full Implementation		
Savings Opportunity	Low Range Annual Savings	High Range Annual Savings
Increase competition	(\$120,000)	\$1.1 million
Consolidate print shops	\$1.8 million	\$1.9 million
Reduce office-based printing costs	\$3.2 million	\$10.7 million
Total Potential Savings	\$5.0 million	\$13.6 million
<p>Source: State Auditor’s Office analysis. See appendices for detailed discussion. Notes: Savings for consolidating print shops would be achieved after full implementation of consolidation and unneeded equipment leases have expired. Numbers do not add due to rounding.</p>		

What’s next?

The Joint Legislative Audit and Review Committee (JLARC) reviews all performance audits of state programs and services. These audits are also reviewed by other legislative committees whose members wish to consider findings and recommendations on specific topics.

Representatives of the State Auditor’s Office will review this audit with JLARC’s Initiative 900 Subcommittee in Olympia. The public will have the opportunity to comment at this hearing.

The Legislature, Governor and relevant state agencies will determine whether to accept the audit recommendations. The State Auditor’s Office conducts periodic follow-up evaluations to assess the status of recommendations and may conduct follow-up audits at its discretion.

INTRODUCTION

Audit overview

Printing services have been provided to Washington's territorial and state governments for more than 150 years. Today's printing and communication environment would be unrecognizable to the lawmakers of the mid-1800s — or even to those who approved creation of the Department of Printing in the 1930s.

Technological advances have dramatically altered the printing industry, especially in the last 20 years. Personal computers, desktop publishing, the Internet and wireless services have created many new communication options that don't require printed documents at all.

Further, the recent recession has increased competition and raised questions about the cost-effectiveness and overall long-term sustainability of current state printing operations.

We conducted this audit to follow up on our evaluation of the Department of Printing for the 2009 State Government Performance Review, which is discussed in more detail below. In addition, we asked:

- Can changes be made to the Department of Printing's current business model that would lower printing costs and/or improve printing services to the state?
- Can statewide printing costs be reduced through the use of new technologies, consolidation, contracting with private printers, or by using leading practices from the printing industry?

Audit scope and methodology

To evaluate state printing services, we examined the practices of the Department of Printing and the 10 executive and legislative state agencies that operate in-house print shops. In-house print shops were defined as a printing department or division within an agency that provides printing services for that agency. It may be staffed by as few as one employee or full time equivalent with only one copier. Our analysis of in-house print shops did not include print shops operated by state colleges and universities, or by the judicial branch.

To gain a well-rounded customer perspective, we also included eight customer agencies that do not have in-house print shops but receive services from the Department of Printing. We selected the customer agencies to reflect a wide range of agency sizes and missions. **Exhibit 1** identifies the agencies that participated in the audit in addition to the Department of Printing.

Exhibit 1	
Agencies involved in audit in addition to Department of Printing	
Agencies with in-house print shops	
<ul style="list-style-type: none"> • Attorney General • Corrections • Employment Security • House of Representatives • Information Services 	<ul style="list-style-type: none"> • Labor & Industries • Senate • Social and Health Services • Superintendent of Public Instruction • WSDOT
Customer Agencies	
<ul style="list-style-type: none"> • Ecology • Fish and Wildlife • Health • Health Care Authority 	<ul style="list-style-type: none"> • Licensing • Financial Management • Revenue • Secretary of State
<p>Note: <i>DSHS operates print shops in Olympia and at Western State Hospital in Steilacoom. The Administrative Office of the Courts operates a print shop but declined to participate in this audit. The House and Senate operate separate print shops with separate funding sources, however they are collocated and share some resources. They provided combined information for the audit.</i></p>	

We analyzed Department of Printing performance data from fiscal years 2007 through 2010 and other agencies’ data from fiscal year 2010. We used the most recent data and information available to compare prices and analyze trends within the printing industry. We compared the data provided by agencies to information in the Agency Financial Reporting System (AFRS) and used agency self-reported data when it contained more detailed information than AFRS.

When calculating state totals for office-based printing costs, we included all state agencies that had expenses in AFRS, sub-object code EF. This total number included charges from higher education costs.

We conducted this audit with the help of Berk and Associates of Seattle, who assembled a team to help us gather, analyze and interpret data about the Department of Printing and other agencies’ in-house print shops. The team included analysts with significant experience in program evaluation, financial analysis and commercial printing, and industry experts from the National Association of Printing Leadership. The printing experts have more than 20 years of experience assisting and consulting with commercial printers, in-house print shops and manufacturers.

We conducted the audit under the authority of state law (RCW 43.09.470), approved as Initiative 900 by Washington voters in 2005, and in accordance with generally accepted government auditing standards, prescribed by the U.S. Government Accountability Office. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives.

During this audit we had to rely on agencies' self-reported information about printing equipment, staffing, production levels and expenditures. Given the number of agencies involved in this audit, and the various ways that information was maintained, tracked, and reported, we did not attempt to verify the accuracy of the information provided. We have identified this self-reported information in the report. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix A describes the provisions of Initiative 900 and how the audit addressed the law's specific elements.

BACKGROUND

State printing services

The Legislature passed the first laws governing printing services in the Washington Territory in 1854. From the 1850s through the mid-1920s, printing services for the territory and the state were contracted to a private printer. In 1925, the printer began receiving a monthly salary, and since 1933 the Department of Printing has been a state agency.

Technological changes have dramatically affected printing practices in all business and government organizations. The proliferation of Internet-based alternatives to printed products and the ability to perform sophisticated publishing tasks from a personal computer are just two of the seismic changes that have altered the printing industry. Today, the Department of Printing's main sources of revenue are books, envelopes, statements, brochures, newsletters and flyers. Printing has a central office in Tumwater and three copy centers throughout Thurston County, and is one of the nation's largest in-house public print shops, with 97 full-time positions.

State spending for services provided by the Department of Printing declined by almost 25 percent over the last three years, from \$36.4 million in fiscal year 2008 to \$27.5 million in 2010. State agency spending on office-based printing followed a similar trend, declining 23 percent over the same period.

The decline in Washington's printing expenditures is consistent with the decline throughout the industry. According to the Printing Industries of America, the world's largest graphic arts trade association, 47,700 printing firms were operating in the United States in 2000. By 2008, the number had dropped to 36,500, and analysts predict there will be fewer than 27,000 companies by 2020.

As technology has changed, so have state printing services. While the Department of Printing may have been the primary state printer in the 1930s, by 2010 it accounted for less than 30 percent of total print-related spending. **Exhibit 2** summarizes spending in fiscal year 2010.

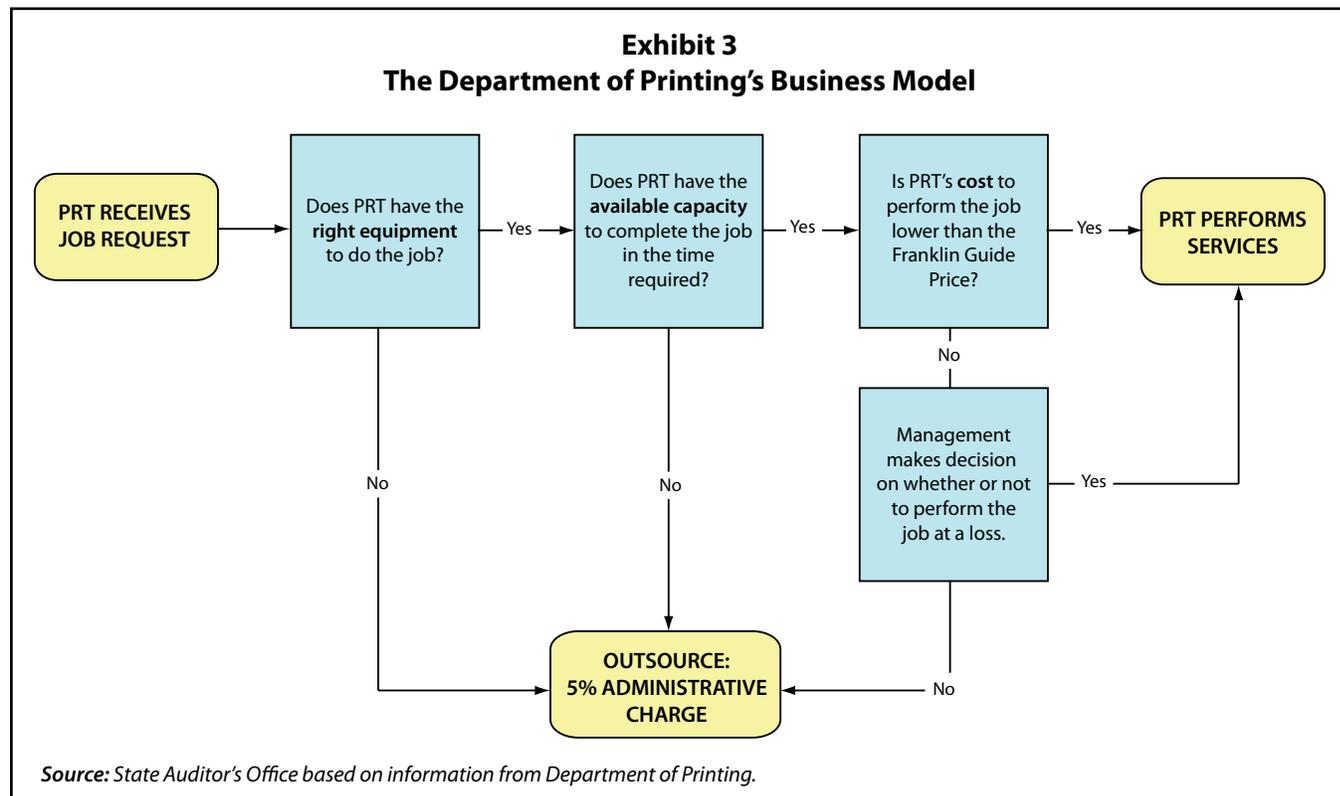
Exhibit 2			
State Printing Expenses in Fiscal Year 2010			
(Dollars in millions)			
Printing Services	Full-time positions	Expenses	Percent of total
Department of Printing	97	\$17.9	23%
Agency print shops (production printing)	59	\$10.2	13%
Private printers (outsourced production printing)		\$10.4	14%
Office-based printing * (primarily equipment and supplies)		\$38.8	50%
Total	156	\$77.3	100%
Source: Agency Financial Reporting System (AFRS) and individual agencies. \$9.6 million of the \$10.4 million of outsourced expenses is outsourced by the Department of Printing.			
Note: *State colleges and universities account for \$30.7 million of the total office-based printing as reported in AFRS.			

The Department of Printing business model

As a central service agency, the Department of Printing generates revenue by charging agencies for the work it does on their behalf. It receives no direct appropriation from the state’s general fund, and does not generate a profit. Under this model, Printing must break even to remain sustainable and avoid the need for future general fund subsidies, and state law requires the Department to return any profits to the general fund. When capital improvements or equipment purchases are needed, the Department uses a lease-financing mechanism to make annual lease payments over a specified period.

State law also requires the Department to take specific actions to help ensure state agencies receive a fair price. The Department of Printing must calculate its actual production cost, compare that amount to a national industry standard, and charge the lower of the two amounts. The required source of national prices is the Franklin Pricing Guide, published annually by Franklin Estimating Systems to identify average prices nationally for standard printing products and services.

If the Department’s production costs are higher than the Franklin Guide price, and it does not want to take a loss on the job, it can outsource the work to a private shop. In that case, the customer agency pays the private bid price plus a 5 percent administrative charge to cover Printing’s cost to bid and manage the project. Printing’s involvement in outsourced jobs includes negotiating volume discounts, managing the process with the vendor, and resolving any problems. **Exhibit 3** illustrates the Department’s business model.



The Department of Printing also uses the following systems to manage its business:

- **P3 System:** P3 is a third-party system used to solicit bids. The software categorizes and tracks responses from qualified private print shops and notifies the Department of Printing of jobs submitted. This is an additional tool that allows the Department of Printing to compare prices from qualified private vendors. Costs for the Department of Printing to outsource work are included later in this report, and were used to determine the costs that would come from increased outsourcing.
- **Monarch:** Printing uses Monarch, a financial management system, to integrate job costing, job pricing, print job management, financial accounting, and financial reporting.

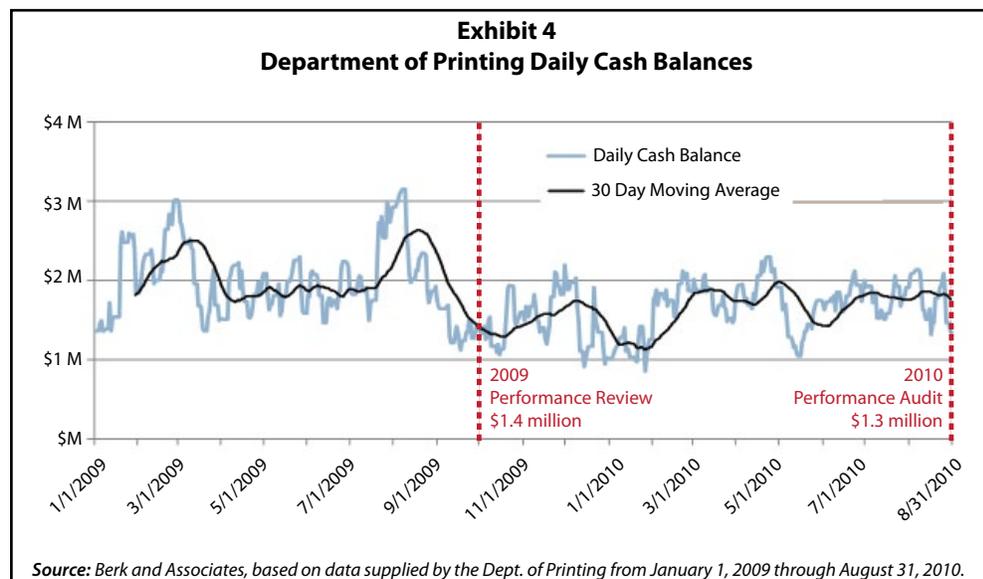
Recent changes at the Department of Printing

Our 2009 evaluation of the Department of Printing for the State Government Performance Review identified several financial and structural issues, including:

- A reduction in printing activity that cut the agency’s revenue. At that time, it appeared the Department would exhaust its cash balance by mid-2010.
- Challenges with the new Monarch financial management system, which was not yet producing reliable cost data.

The review also identified options for changing the Department of Printing’s business practices and described the Iowa state printer’s transition to a competitive model that provided more operating flexibility. Our 2009 report suggested that Printing and customer agencies could benefit from changes to state law but did not analyze the applicability of the Iowa model to Washington.

Since our 2009 review, the Department’s financial condition has stabilized. In response to declining revenues (from \$36.4 million in fiscal year 2008 to \$27.5 million in 2010), the Department reduced its work force from 124 full-time-equivalent employees to 97 in January 2010 and recently closed two of its copy centers. By effectively reacting to decreased demand, Printing stopped the downward trend in daily cash balance, as illustrated in **Exhibit 4**.



The Department also continues to correct its operating systems, including its Monarch financial system. Printing began using Monarch in February 2009 to manage financial information. Monarch replaced two separate, independent systems for production and financial tracking. Agency administrators spent much of 2010 improving the system and said they expected it to be fully functional by December 2010.

In the fall of 2010, while our audit was under way, Monarch continued to produce inaccurate information and did not accurately track and report the Department's financial performance. With OFM's approval, Printing has continued to work on the Monarch system and based on more accurate information, restated its reported net income for fiscal year 2010 upward by more than \$1 million.

After we completed our field work for this audit, the Department of Printing reported that the Department had addressed the technical problems with the Monarch financial reporting system and that it was functioning as designed. Because of the limited time available for this audit we could not verify the effectiveness of the corrections.

AUDIT RESULTS

Summary of results

We designed this performance audit to answer the following questions:

- Can changes be made to the Department of Printing's current business model that would lower printing costs and/or improve printing services to the state?
- Can statewide printing costs be reduced through the use of new technologies, consolidation, contracting with private printers, or by using best practices from the printing industry?

The audit identified several key issues:

Overall, Washington is using relatively few of the effective tactics that other states employ to hold down costs. Specifically:

- **The state is not receiving the full benefits** of an increasingly competitive printing marketplace. State law limits the Department's operating flexibility and often prevents state agencies from obtaining bids from private printers. In this environment, it is impossible to determine whether privatizing all printing services would reduce costs.
- **The presence of independently operated state agency print shops** contributes to inefficiency and unnecessary duplication of services. Much of the state's large-capacity production printing equipment is substantially underused.
- **Nearly half of the state's printing expenses are** for equipment and supplies to support office-based printing — desktop printers, paper, ink, toner and other supplies. With very limited exceptions, state agencies are not using leading practices such as managed print to reduce overall costs, and the state lacks a management strategy to contain printing costs.

Based on these issues, we recommend specific actions to lower state printing costs by increasing competition among private printers and the Department of Printing, closing state agency in-house print shops, and adopting successful strategies that other organizations have used to limit the costs of office-based printing. Potential cost savings are shown in **Exhibit 5** and discussed in detail in the following pages. Most of our assumptions were conservative, and in many cases our analyses resulted in a range of potential savings. More detailed information about these estimated cost savings is presented in **Appendices C through G**.

Exhibit 5		
Summary of Potential Cost Savings after Full Implementation		
Savings Opportunity	Low Range Annual Savings	High Range Annual Savings
Increase competition	(\$120,000)	\$1.1 million
Consolidate print shops	\$1.8 million	\$1.9 million
Reduce office-based printing costs	\$3.2 million	\$10.7 million
Total Potential Savings	\$5 million	\$13.6 million

Source: State Auditor's Office analysis. See appendices for detailed discussion.
Notes: Savings for consolidating print shops would be achieved after full implementation of consolidation and unneeded equipment leases have expired. Numbers do not add due to rounding.

Issue: The state is not receiving the full benefits of an increasingly competitive printing marketplace under the current system.

Across the industry, prices for printing work can be very competitive, reflecting such factors as print shops' operating efficiency, labor costs and required turnaround times.

However, state agencies in Washington cannot take direct advantage of this market competition. State law (RCW 43.78.030) directs agencies to use the Department of Printing and gives the Department a "right of first refusal," which means the Department decides whether it will produce specific jobs or solicit bids from private printers. In fiscal year 2010, the Department outsourced approximately \$9.6 million in work to private printers. When considering whether to outsource work, the Department considers its technical capabilities and available production capacity, the cost of the job and turnaround time requirements.

In calculating the price it will charge for **each** print job, the Department is required by state law to calculate the expected costs and compare them with the price listed in the Franklin Guide. The Department must charge the **lower** of the two amounts. This statutory price cap was intended to ensure that state agencies are paying a competitive price for printing services.

To assess whether agencies were receiving competitive prices, we compared rates of the Department to those of private printers in Thurston County and to national price surveys. The results were inconclusive, as described below. The comparisons are summarized below and detailed in **Appendix C**.

- **Auditor's 2010 comparison.** We asked several Thurston County printers to submit bids on seven common jobs performed by the Department of Printing. Five printers submitted bids on one or more of the jobs. The Department's prices were lower than all the bids for five of the seven products (binders, letterhead, posters, books and envelopes) and higher for two (newsletters and self-mailers).
- **National price comparison.** We compared the Department's 2010 prices with those from the In-Plant Printing and Mailing Association's 2010 pricing study for three standard products: black-and-white copies, color copies and posters. The Department's prices were higher than the national median for black-and-white and color copies and lower than the median for posters.
- **2010 Printing Benchmark Study.** The Department annually asks commercial print shops in Thurston County and around the country for their prices on 17 jobs that represent the Department's normal range of work. The 2010 pricing comparison showed the Department charged the lowest prices for eight jobs and higher prices for the remaining nine.

We found printing prices vary widely and can change significantly over time. These price comparisons represent snapshots at a single point in time and were not designed to capture trends over time or to assess print shops' overall competitiveness.

Managers at agencies that use the Department of Printing expressed mixed levels of satisfaction with the Department's prices and service. While some were extremely satisfied, others questioned the Department's pricing competitiveness and recommended that competitive bids be obtained for all jobs, with Printing as one of the competitors.

To more accurately assess whether agencies are consistently receiving printing services at the lowest possible cost, the state would need to compare prices and bids from private printers and the Department over time.

Other public printers hold down costs through competition and regular cost comparisons

We interviewed public printers in other states to identify alternative methods and practices that are designed to ensure customers get competitive printing prices. None of the nine state printers we contacted operates under a legislatively mandated price restriction. Other state printers demonstrate their competitiveness with practices such as benchmarking their prices against private-sector rates or by competing directly with private print shops.

In states where the public printers compete directly with private print shops, customer agencies often are allowed to solicit bids from private print shops and required to obtain bids from the state printer. Then the agencies are free to choose the lowest bid. For example:

- **In Nevada, the state printer competes for work** directly with private printers. Before 2003, the Nevada printer had a business model similar to Washington, where the printer had to refuse to do a job before agencies could outsource the work. That right of first refusal was eliminated when the printer was transferred from the executive branch to the legislative branch. Today, agencies are required to seek a bid from the public printer but may contract with private printers. The Nevada state printer's office said its revenue dropped in the first year after the competitive system began, but revenues rebounded in the second and third years after the printer addressed issues to improve customer satisfaction.
- **Colorado's state printer is required to compare its** prices with those of private printers every two years and provides a report to the Legislature. To determine its prices, the Colorado printer considers overhead and personal services costs to determine operational costs and then measures past print volumes to determine base prices. The printer then publishes its prices on its website. If customer agencies find a lower price at a private print shop, they may get a waiver to contract with that printer.

- **In Iowa, customer agencies may use either a** private print shop or the state Print Services Department, but are not required to obtain a bid from the public printer. Iowa Print Services managers said they stay competitive with the private sector by benchmarking prices for comparison and sending out blind procurement requests to determine market rates. Print Services managers said they generally handle the most costly state agency print jobs.

Using a competitive approach for printing services

Washington could create a competitive environment by allowing the Department of Printing and its employees to compete with private printers for all state agency print jobs, and allowing agencies to select the printer that can produce high-quality work at the lowest possible price.

Actual price comparisons over time would provide policy makers with the data and facts necessary to determine whether state printing services should be fully privatized. As we looked for opportunities to improve efficiency and reduce costs in this audit, we considered the option of completely privatizing state printing services. While privatizing certain activities can lead to significant savings, privatization is not always the answer.

In the absence of verified data about costs and potential savings, privatization efforts may generate unanticipated costs that could actually increase costs to taxpayers.

A recent article in *Governing* magazine discussed the pros and cons of privatization and noted that some government entities have found that focusing on competition rather than just outsourcing reduced costs and improved quality. Also, the article said, "The states most successful in privatization created a permanent, centralized entity to manage and oversee the operation, from project analysis and vendor selection to contracting and procurement."

Because of factors cited earlier, we could not determine if abolishing the Department and privatizing state printing services would save money. For example:

- **Three recent comparisons of the Department's prices to those of other private and public printers were inconclusive.** The Department's prices were lower than those of other printers on some jobs and higher on others.
- **The presence of a public printer in a competitive environment may improve service and hold down overall printing expenses.** Increased competition almost always leads to lower prices, especially when the competitors operate efficiently. At least one other state found that giving public and private printers the opportunity to compete for all jobs spurred the public printer to improve its service and efficiency while moderating overall prices.

- **Competition among private and public printers for state jobs is quite limited.** State law requires most agencies to use the Department of Printing, and several agencies operate their own print shops. In this environment, relatively few projects are sent out for competitive bids, and the state pays for many jobs without knowing what private printers would have charged. The lack of comprehensive pricing data prevented us from concluding whether the state is paying the lowest possible prices.
- **Customer agencies expressed mixed views of the Department of Printing's pricing and effectiveness.** Some agencies were very satisfied, but others questioned whether its prices were too high and said they wanted the authority to solicit bids on all jobs from private printers and the Department.

Creating a competitive, market-based approach for printing services in Washington would:

- **Eliminate the need for a statutory cap on** the Department's prices for individual printing jobs, because market competition would tend to hold down costs to agencies. Removing the cap also would allow the Department to operate with a more sustainable business model and give it greater flexibility in achieving long-term financial stability.

The current statutory provision requires the Department to charge the **lower** of its actual costs or the Franklin Guide price for each print job. If the Department's actual costs for a project are higher than the Franklin Guide price (for example, when overall print volume is low but fixed costs still have to be recovered), its only options are to perform the job at a loss or outsource it to private printers. Outsourcing printing jobs under such circumstances can reduce the Department's printing volume—and cash flow—even further. That business model is unsustainable over the long term. Private printers have more flexibility when bidding on print jobs to consider issues of capacity and demand in the marketplace and are not constrained by artificial pricing constraints.

- **Give state agencies the opportunity to find and** choose the lowest price on jobs. As described earlier, Nevada's printer lost its right of first refusal when agencies were allowed to solicit bids from private vendors as well. While the change in business model led to an initial decrease in revenue for the Nevada printer, over time, the revenue for the state printer increased. Because the Nevada printer was required to operate in a competitive market, it was required to improve its operations and better respond to customer requests.
- **Require the Department of Printing to accurately estimate** its costs when bidding on jobs. Print shops that operate in competitive environments work hard to ensure the reasonableness of their prices. Many printers use a Budgeted Hourly Rate (BHR) model to establish the base price. The BHR is an industry standard that assigns costs to specific equipment or units within the organization, which requires accurate information and assumptions about productivity, staffing, utility use, occupancy and maintenance requirements.

The Department's BHR model did not accurately reflect its actual costs in 2010, when some costs were lower and some higher than shown in the model, which resulted in total costs for the year being understated by \$500,000. The Department should improve the accuracy of its BHR model regardless of whether state printing services are changed, but these improvements would be critical to the Department's success if it were required to compete against other printers.

A market-based approach could reduce state costs

Establishing a system in which the Department competed directly with private printers could result in more work being outsourced or done at a lower cost, resulting in potential savings. However, the costs of managing such a system also should be considered.

The state could manage a competitive process in several ways. For example, individual agencies could be responsible for their own bidding on projects, or a single public or private office could be designated to establish and maintain common standards and to seek the benefits of economies of scale. Soliciting, managing, monitoring and tracking the work performed by private vendors would generate administrative costs. In addition, contracting out additional print jobs could affect existing collective bargaining and contractual requirements.

The Department of Printing currently has personnel and systems in place to solicit, manage and track \$9.6 million in outsourced work to the private sector. We used the Department's costs to administer this outsourcing to inform our cost savings projections.

Savings could vary considerably depending on the actual prices charged by public and private printers. To determine potential savings, we considered actual prices for jobs submitted by private printers for the Department's 2010 pricing survey and costs that would be required to manage outsourced work. Based on this analysis, we estimate state agencies could save up to \$1.1 million a year by outsourcing jobs that could be done for less in the private sector. Our analysis and assumptions are described in detail in **Appendix D**.

Overall, our pricing analysis suggests that removing the price cap on the Department of Printing, eliminating the Department's right of first refusal and allowing agencies to solicit bids from private printers could reduce costs. If state agencies solicited bids from the Department of Printing and private printers on all jobs, they could be further assured of receiving a competitive price.

Issue: In-house agency print shops duplicate services available from the Department of Printing. As a result, most state printing equipment is used at only a fraction of its capacity.

Ten state executive and legislative branch agencies other than the Department of Printing operate print shops at varying levels of complexity and efficiency. While some work is coordinated with the Department, the agency print shops are managed independently.

Some print shops had accurate and detailed records of their costs, equipment and volume of work performed, but others had little data and could not provide us with all of the information we requested. The lack of comprehensive data makes it difficult to accurately assess, manage and coordinate printing efforts statewide. **Exhibit 6** summarizes the employment levels and expenses of these shops.

Exhibit 6 Agencies other than Printing that operate in-house print shops Fiscal Year 2010 (Dollars in millions)		
Agency	Full-time positions	Expenses
Information Services	20	\$3.7
WSDOT	11	\$1.7
Legislature (see note)	11	\$1.2
Employment Security	5	\$1.1
Attorney General	5	\$0.6
Corrections (see note)	2	\$0.7
Social & Health Services (see note)	2	\$0.6
Supt. of Public Instruction	2	\$0.3
Labor & Industries	1	\$0.3
Total	59	\$10.2M
Sources: AFRS and individual agencies. Note: Full-time positions reflect average annual FTE for FY2010. The House and Senate operate separate print shops with separate funding sources, however they are collocated and share some resources. The Department of Corrections employs 36 inmates as part of rehabilitation-job skills program. DSHS operates two print shops, one in Olympia and one at Western State Hospital in Steilacoom. The print shop analysis does not include print shops at state colleges and universities.		

Statutory issues

State law (RCW 43.78.030) directs agencies to use the Department of Printing and allows the public printer to obtain work from private sources when it determines that jobs may be obtained from private sources more economically than from the state printing plant. The law also provides limited exceptions for when agencies may use their own printing services. Exceptions include

the printing of reports from the Supreme Court and Court of Appeals, and the state's colleges and universities.

However, the law also contains the following provision:

“... Where any institution or institution of higher learning of the state is or may become equipped with facilities for doing such work, it may do any printing: (1) For itself, or (2) for any other state institution when such printing is done as part of a course of study relative to the profession of printer...”

The complete statute is in **Appendix H**.

Some agencies have interpreted the underlined term “institution” to mean “state agency” and have determined that this allows them to maintain their own print shops. There are no statutory guidelines about how these print shops should operate, and agencies operate them at varying levels of complexity and efficiency. Some agency print shops also provide non-printing functions; for example, the Attorney General’s Office print shop provides audio visual services and electronic litigation support, WSDOT’s print shop provides quality assurance, distribution and distribution tracking for construction contracts, and the Department of Corrections provides engraving services and also uses its in-house print equipment to provide job training to inmates.

These agencies cite several advantages of operating in-house print shops, including faster turnaround time, greater convenience, increased security and greater proximity of subject matter expertise for specific agency products than that provided by the Department of Printing. The presence of these independently operated print shops duplicates the services available at the Department of Printing as shown in **Exhibit 7**.

Exhibit 7 Availability of Printing Services											
Services	Dept. of Printing	Attorney General	Legislature (House & Senate)	DSHS (Medicaid)	Employment Security	WSDOT	DSHS (WSH)	Corrections	OSPI	DIS	L&I
Addressing/ mailing/ fulfillment	✓		✓	✓	✓	✓			✓	✓	
Batch printing	✓	✓	✓				✓	✓		✓	✓
Copying	✓	✓	✓	✓	✓	✓	✓		✓		
Correction/file repair/ copy prep	✓	✓	✓	✓	✓	✓	✓		✓		
Digital printing	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Finishing/ binding	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Graphic design/ layout	✓	✓	✓	✓		✓	✓	✓			
Large format work	✓	✓	✓	✓	✓	✓		✓			
Offset printing	✓		✓			✓		✓			
Process printing	✓							✓			
Scanning	✓	✓	✓	✓	✓	✓	✓		✓		
Variable data printing	✓	✓		✓	✓					✓	✓
Web printing	✓			✓						✓	

Source: State Auditor’s Office analysis of agency information.

Duplication of services has resulted in excess printing equipment

Because services are duplicated at multiple agencies and demand for printing is on the decline, the state has accumulated far more equipment than necessary. As shown in **Exhibit 8** and detailed in **Appendix E**, most state printing production equipment at the Department of Printing and agency print shops is significantly underused.

To determine equipment usage rates, we focused on more expensive digital devices such as departmental printers and equipment with at least a 50 page-per-minute (ppm) output rate. These devices have more features and greater capacity and, therefore, require greater usage to justify their purchase. Based on factory-determined page-per-minute rates, we determined a maximum number of pages a piece of equipment could produce in one shift and compared the actual output, as reported by each agency, to the maximum. The analysis is limited to information recorded by the machines and reported by agencies.

While these production machines could operate for more than one shift per day, our analysis conservatively assumed that a machine would be used at 100 percent of its capacity if it ran for 6.5 hours for one shift a day for the equipment with the highest page-per-minute outputs, and 5.5 hours for

one shift a day for equipment that had lower page-per-minute outputs. A machine was determined to be the right fit for the agency if it operated above 50% of its capacity. Maximum page outputs would be increased if machines operated for more than one shift per day. Thus our estimate of the amount of excess capacity in the state’s production printing equipment is conservative.

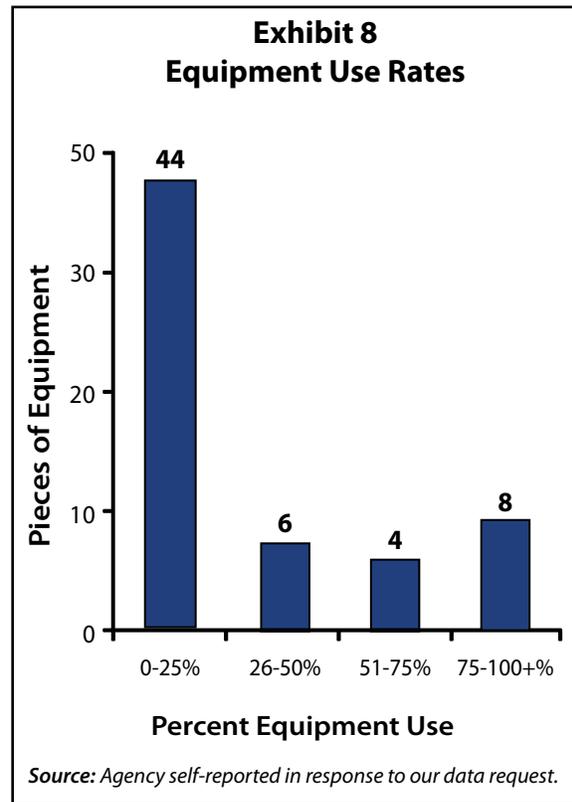
We found that 80 percent of the printing equipment used by the Department of Printing and the in-house agency shops is operated at less than 50 percent of its capacity. More than one-third of the production equipment we analyzed — 27 individual printing devices — was used at less than 10 percent of capacity. Only 12 of the 62 pieces were used above 50 percent of their capacity. The most efficient piece of equipment, a 150 ppm printer at the Department, was operating at 121 percent of capacity. The least efficient were five machines operating at between 0.5 percent and 1.5 percent of capacity.

The usage rate can be a good measure of how well equipment matches average demand, however, it is not always the most important factor in an agency’s decision to obtain equipment. Work that must be completed quickly or operating environments that experience large swings in activity require some amount of equipment over-capacity. Some in-house print managers said they selected equipment to meet this need for just-in-time printing. While there may be periods when they operate at full capacity, on average there is substantial excess capacity across the system.

The effect of underused equipment may also be lessened by agencies that lease rather than purchase equipment, because they pay only for actual use and not for idle capacity. However, there are costs for leased equipment, including maintenance, leased space and labor. Reducing the amount of underused equipment by better aligning equipment and capacity levels with actual demand could reduce all of those costs. Details of this analysis can be found in **Appendix E**.

Other public printers have consolidated print shops

Other public printers have held down costs and better coordinated the printing function by consolidating and centralizing services. The largest public in-house printer in the United States, the federal Government Printing Office, sees centralization as the most efficient way to manage costs. States such as Iowa and Texas have consolidated to better align resources with demand. Over the last 10 years, Texas consolidated 30 print shops into six. Iowa recently closed two of the least efficient satellite print/copy centers and consolidated mainframe and digital printing into one location.



Consolidation efforts have not been limited to copy centers and in-house print shops. A number of states have also consolidated mail and delivery services with printing.

- **Colorado combined mail, print, copy and delivery services** in 2002, and further merged those functions in 2006 within an Integrated Document Solutions (IDS) office that also handles database work, data entry and document scanning. In 2009, the Office of Information Technology transferred its entire printing operation to IDS.
- **Oregon has operated a centralized Publishing and Distribution** Department for about 14 years. A consolidated center handles design, printing, variable data printing, sorting, mailing and delivery. Agency officials said this model saves state agencies about \$5 million per biennium, in part because 99 percent of all mail from the main center qualifies for postal discounts.
- **In Pennsylvania, the Bureau of Publications introduced a** process that consolidated print shops and some mail services into a centralized operation. Consolidation was voluntary, and the Bureau markets its abilities to improve print quality and reduce costs to state agencies. When we interviewed Pennsylvania officials, they had centralized approximately 25 percent of its printing facilities and had saved about \$1.2 million.

Potential savings from consolidation in Washington

As shown above in **Exhibit 8**, system-wide, production equipment at the Department of Printing and agency print shops has unused capacity. Eliminating agency print shops as independently operated print shops and consolidating them under the management of the Department of Printing could lead to savings.

Consolidating agency print shops into the Department could be accomplished in several ways. This could include closing some or all of the current agency shops, or leaving some print shops that operate efficiently in place, but turning management over to the Department of Printing. The Department could establish Service Level Agreements with agencies to maintain current quality of service provided by independent agency print shops, particularly when mission critical services within agencies depend on printed materials. A coordinated statewide effort could bring the most efficient parts of independent agency print shops into a coordinated effort under the Department of Printing while also getting rid of unnecessary equipment.

Consolidating print shops under the Department of Printing would also allow the Department to better manage, track, coordinate and reduce the amount of overall capacity in the system by better aligning equipment and staffing levels with actual demand. A single management structure would also provide a consistent level of data to better assess actual equipment and agency needs to better coordinate and meet the statewide printing demands.

Savings from consolidating agency print shops with the Department of Printing likely will stem from increasing the efficiency of printing services statewide and reducing duplicative equipment, maintenance, employee and administrative costs. Achieving maximum savings may take several years depending on lease structures and the potential for early termination fees.

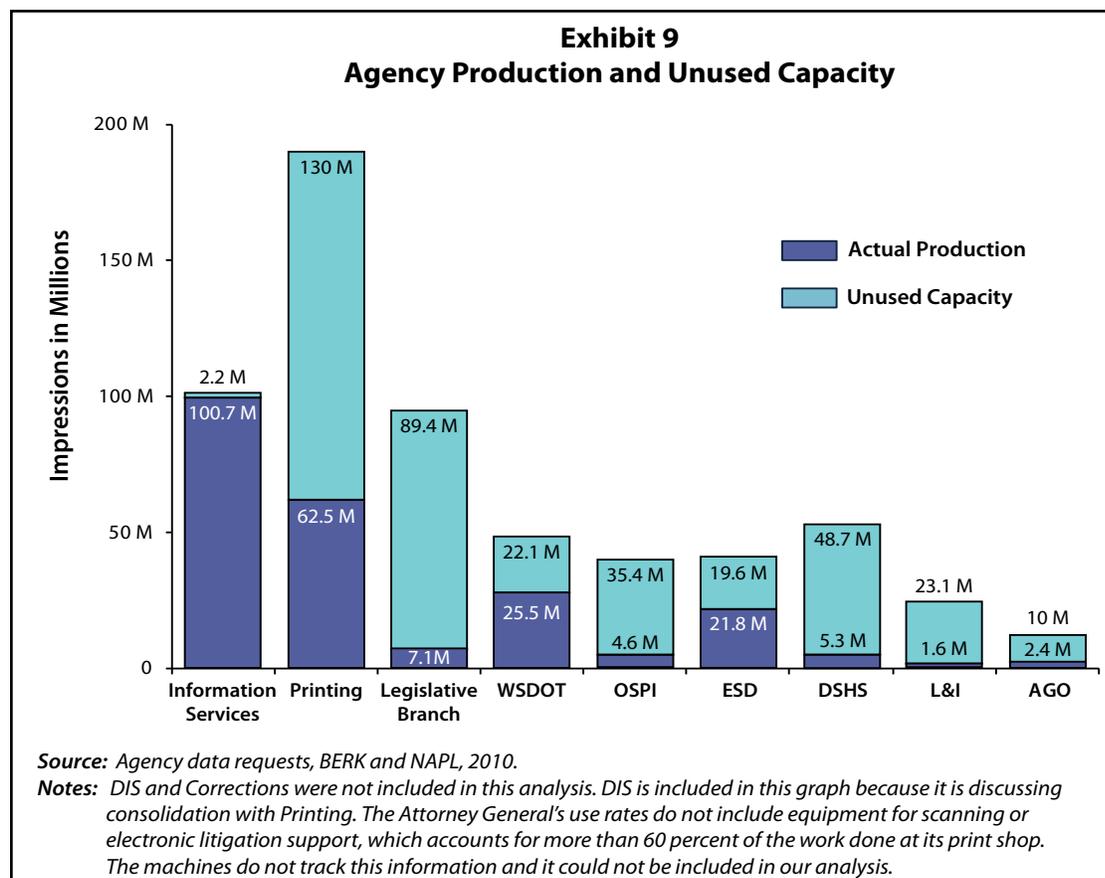
In addition to the savings in our analysis, discussions are already under way between the departments of Printing and Information Services to consolidate print shops. Printing managers said they planned to transition a significant portion of the DIS print shop and services to their department by July 1, 2011. They estimated these efforts would save about \$10 million over six years from reduced costs for personnel, supplies, equipment and facilities.

To evaluate potential savings from optimizing equipment levels and consolidating other agency print shops into the Department of Printing, we used the information from our equipment utilization analysis, discussed in **Appendix E**, and also considered:

- Unused capacity and equipment savings.
- Staff savings.
- Facility savings.

Our analysis did not include the print shop at DIS, because consolidation efforts with Printing were already under way. Nor did we include the print shop at Corrections, because of its use for inmate rehabilitation and job-skills training. As shown in **Exhibit 9**, we found the current unused capacity of digital equipment at the Department of Printing and its copy centers was greater than all of the 2010 printing volume at the remaining agency print shops. After absorbing their work, the Department would still retain excess capacity to handle jobs with quick turnaround requests. We estimate this consolidation, when complete, could save \$1.8 million to \$1.9 million per year.

Detailed information about our cost assumptions and projected savings appear in **Appendix F**.



Issue: Washington does not have an overall strategy to contain the costs of office-based printing, which accounted for 50 percent of the state's printing costs in 2010.

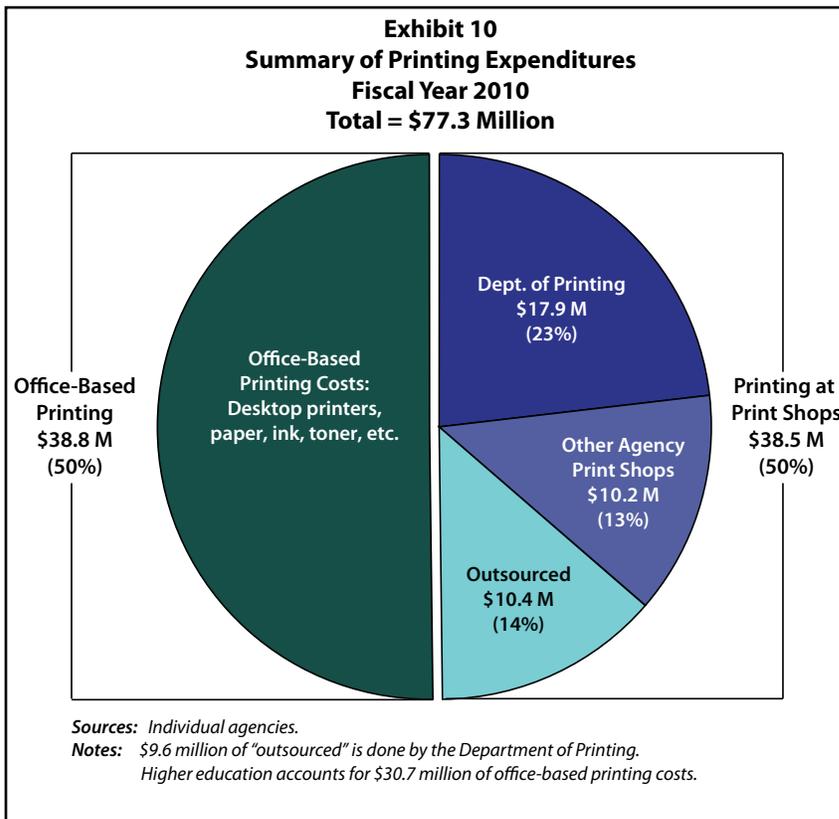
In 2010, 50 percent of total state printing costs — \$38.5 million — was for “production” print jobs produced by the Department of Printing, in-house agency shops or under contract by private print shops. The remaining 50 percent -- \$38.8 million — was for office-based printing expenses, including paper, ink, toner and equipment within state agencies. State colleges and universities accounted for \$30.7 million of these office-based printing costs. These expenses are shown in **Exhibit 10**.

Apart from short-term directives by the Legislature to reduce printing expenditures, Washington state government has no formal policies to control or reduce office-based printing volume and costs. This lack of direction contributes to inconsistent practices and varying levels of efficiency among state agencies, especially for the increasingly common printing performed on office copier/printers. For example, some agencies have nearly one printer per FTE, while other, more efficient agencies have one printer per eight FTEs.

Other states use additional cost-cutting strategies

Other states are using managed print, new technologies and other strategies to cut costs and improve efficiency. For example:

- **An Iowa task force recently recommended reducing the number of individual desktop printers and the ratio of employees to printers; creating standards for office printing and the use of print shops, developing software to track printer use and maintenance, and utilizing technology such as intelligent bar codes to gain efficiencies.** The work group made several other proposals. Recommendations included using managed print software to monitor printer use and maintenance and equipment status.



- **Oregon put unemployment payments on debit cards.** Since 1997, Oregon has been using debit cards to provide benefits like food stamps and welfare payments. In 2004, Oregon also began putting unemployment benefit payments on prepaid debit cards after initial payments were made. This approach is less expensive than printing and mailing checks and envelopes to benefit recipients. Oregon has made insurance benefit packets and enrollment forms available only online.
- **Colorado uses debit cards for food assistance, child support and other state-funded programs.** The provider of this service claims that it enables state governments to reduce the time and costs of delivering benefit payments. This alternative also could reduce security costs and the incidence of fraud. The provider also said the use of debit cards enables governments to enhance their paperless environmental initiatives.

A coordinated, strategic approach could cut office printing costs

Washington's 2010 supplemental budget bill directed the Office of Financial Management (OFM) to reduce printing costs by \$1.5 million in fiscal year 2011 through a strategic printing strategy. OFM and the departments of Information Services and Printing identified "managed print" as a leading practice to reduce the costs of office-based printing.

Managed print is a generic term for a process that typically involves an outside vendor assessing an agency's printing needs and determining the right amount of equipment to meet actual demand. After assessments are complete, vendors typically provide the right level of equipment, service, parts and supplies to meet the user's business needs. Users often pay fixed rates per copy once minimum levels are met. Managed print enables an agency to have the most efficient set up of equipment and accurately track its printing volume and costs, while also allowing the vendor to track equipment usage and problems and identify possible solutions.

Only three Washington agencies outside of the Department of Printing are using managed print; 25 others have received the initial print assessment but have not put the strategy into practice. Agencies using managed print have some of the highest office-based staff-to-equipment ratios in state government — one device for up to eight employees. Managers at these agencies said they are reducing equipment costs and devoting less staff time to maintaining printers and copiers. One agency, the Department of Ecology, reported it has saved \$200,000 to \$300,000 a year by using managed print.

In 2009, Gartner, Inc., an international information technology research and consulting company, issued several reports discussing opportunities to reduce office printing costs through managed print. Our industry experts identified Gartner as one of several leading companies that provides good information. Gartner asserted that most organizations have too much and the wrong kinds of printing equipment and estimated that organizations could cut office-based printing costs by 10 percent to 30 percent by using a managed print strategy.

Potential savings in Washington

As noted above, Washington state agencies spent \$38.8 million on office-based printing in fiscal year 2010. If those agencies could reduce office-based printing costs by the percentages cited by Gartner, the state could save \$3.2 million to \$10.7 million annually after full implementation. Detailed information about our cost assumptions and projected savings appears in **Appendix F**.

OFM conducted two separate analyses to determine the amount Washington state agencies could save by using managed print. The savings in OFM's analyses are consistent with the estimated savings noted above. First, using Ecology's reported savings as a base, OFM calculated that Washington state agencies could save approximately \$7 million a year through managed print. Second, using information about the projected savings from the 25 agencies that had actually undergone print assessments as a base, OFM calculated that Washington state agencies could save approximately \$9.5 million a year through managed print. The ranges of savings projected by OFM are consistent with the range projected by Gartner.

RECOMMENDATIONS

We recommend state lawmakers and executive and legislative agencies take several actions to reduce printing costs, improve efficiency and build a foundation for long-term cost containment.

Allow private printers and the Department to compete for all jobs

1. To establish a more market-based printing environment in Washington State, lawmakers should allow state agencies to obtain bids from private vendors and should require them to solicit bids from the Department of Printing for all jobs that require the services of a print shop. This will require the Legislature to eliminate the Department's "right of first refusal" that prohibits agencies from seeking multiple bids from private vendors

This approach will assure agencies that they are receiving the lowest price and will provide the Department of Printing with the opportunity to bid on every job and demonstrate its competitiveness. Washington should follow similar practices to those used in other states to ensure agencies follow standard state procurement regulations.

2. To enable the Department of Printing to compete effectively in a market-based printing environment, lawmakers should remove the Franklin Guide price cap and enable the Department to set competitive prices for individual jobs with the overall goal of achieving long-term financial stability. Currently, state law (RCW 43.78.080) contains a price cap that makes it difficult for the Department to recover its production costs.

Removing the Franklin Guide price cap and providing for direct competition between the Department and private printers should help ensure state agencies receive competitive prices for their printing needs and would enable the Department to compete without the restriction of a statutory price cap.

3. To ensure that it can accurately estimate its operational costs and produce competitive bids on individual jobs, the Department should regularly update its Budgeted Hourly Rate model to reflect current conditions.

Reduce the number of print shops to cut costs and duplication

4. To reduce duplication of services, streamline coordination and management of printing services and minimize long-term costs, the Office of Financial Management should direct WSDOT, Employment Security Department, Department of Social and Health Services, and Department of Labor and Industries to consolidate their printing equipment and staff with the Department of Printing. We also recommend that the Legislative branch, Office of Superintendent of Public Instruction, and Attorney General's Office consolidate printing equipment and staff with the Department of Printing. This would allow the state to better coordinate statewide printing, take advantage of any existing efficiencies at agency print shops, and align equipment and staffing with statewide demand. While some excess capacity is desirable at the Department to accommodate normal fluctuations in demand, the current level of duplication is unnecessary.

Adopt statewide cost-containment strategies

5. The Office of Financial Management should develop a strategy to meet printing needs across state government in an increasingly digital environment. To hold down print shop costs, we recommend OFM develop uniform criteria to help agencies determine when to seek competitive bids from public and private printers and how to evaluate those bids.

6. To improve the efficiency and minimize the costs of all printing services, OFM should ensure its strategy addresses paper reduction, utilizing electronic technologies and other leading practices to contain printing and paper costs in Washington. We recommend the Office of Financial Management establish rules and guidelines for all state agencies to reduce expenses for such items as desktop publishing computers, copiers, printers, paper, ink and other printing supplies. At a minimum, OFM should require all state agencies to use "managed-print" strategies as described in this audit to track, manage and reduce office-based printing output and costs.

AGENCIES' RESPONSES



STATE OF WASHINGTON
OFFICE OF FINANCIAL MANAGEMENT

Insurance Building, PO Box 43113 • Olympia, Washington 98504-3113 • (360) 902-0555

April 15, 2011

The Honorable Brian Sonntag
Washington State Auditor
P.O. Box 40021
Olympia, WA 98504-0021

Dear Auditor Sonntag:

Thank you for the opportunity to provide this official, coordinated management response from the 13 Cabinet agencies involved in the Performance Audit on Printing Services.

Overall, we are pleased that the audit supports many actions that have already been taken by state agencies to increase efficiencies in printing. For example, it notes that the State Printer has successfully adapted to decreasing demand since 2009. Moreover, the In-Plant Printing and Mailing Association (IPMA) has named the State Printer the best managed in-plant print shop in the nation for 2010. This competitive award – open to both public and private entities – recognizes an operation that excels in efficient management practices to further the objectives of its parent organization.

We acknowledge the rapidly-changing environment of printing and communication, and support competition to drive down costs and improve customer service. We are pleased the audit offers additional support for Governor Gregoire's proposed legislation this session to consolidate the Departments of Printing and General Administration and portions of three other agencies into a single agency to increase efficiency and realize savings.

We also support comprehensive efforts to contain office-based printing costs. The first use of managed print began in 2005 with the Department of Ecology. The Governor's current proposal to consolidate central services mandates managed print for all agencies with more than 1,000 full-time employees (FTEs). In addition, our recent sustainability measures have already paid off. Paper used per FTE is 25 percent below the national average for office workers, as estimated by the U.S. Environmental Protection Agency.

While we support consolidation, we still have questions about the audit's assumptions behind potential cost savings and current use of equipment. As part of our consolidation efforts, we will evaluate more fully key areas, such as peak capacity and possible issues of confidentiality and federal restrictions.

Sincerely,

A handwritten signature in black ink that reads "Marty Brown".

Marty Brown
Director



The Honorable Brian Sonntag
April 15, 2011
Page 2 of 2

Attachment

cc: Jay Manning, Chief of Staff, Governor's Office
Jill Satran, Deputy Chief of Staff, Governor's Office
Wendy Korthuis-Smith, Director, Accountability & Performance, Governor's Office
Kimberly Cregeur, Governor's Liaison on Performance Audits, Accountability & Performance,
Governor's Office
Jean-Luc Devis, Director, Department of Printing
Eldon Vail, Secretary, Department of Corrections
Ted Sturdevant, Director, Department of Ecology
Paul Trause, Commissioner, Employment Security Department
Phil Anderson, Director, Department of Fish and Wildlife
Mary Selecky, Secretary, Department of Health
Doug Porter, Administrator, Health Care Authority
Mike Ricchio, Acting Director, Department of Information Services
Judy Schurke, Director, Department of Labor and Industries
Liz Luce, Director, Department of Licensing
Suzan DelBene, Director, Department of Revenue
Susan Dreyfus, Secretary, Department of Social and Health Services
Paula Hammond, Secretary, Department of Transportation

OFFICIAL STATE CABINET AGENCY RESPONSE TO THE PERFORMANCE AUDIT ON PRINTING SERVICES

APRIL 15, 2011

This coordinated management response is provided by the Office of Financial Management on behalf of the following Governor's Cabinet agencies for the audit report received on April 4, 2011: Departments of Printing, Corrections, Ecology, Employment Security, Fish and Wildlife, Health, Information Services, Labor and Industries, Licensing, Revenue, Social and Health Services, and Transportation, and the Health Care Authority.

ISSUE 1: The state is not receiving the full benefits of an increasingly competitive printing marketplace under the current system.

RECOMMENDATION: Allow private printers and the Department to compete for all jobs.

RESPONSE

We acknowledge the rapidly changing environment of printing and communication, and support competition to drive down costs and improve customer service.

As noted in the audit, the State Printer has successfully adapted to decreasing demand since 2009. Moreover, **the In-Plant Printing and Mailing Association has just named the State Printer the best managed in-plant print shop in the nation for 2010.** This competitive award — open to both public and private entities — recognizes an operation that excels in efficient management practices to further the objectives of its parent organization.

Based on the audit comparison and the State Printer's benchmarking survey, the State Printer often charges lower prices than private sector businesses. For example, the audit compared 17 jobs sent to other print shops for bids. Of those 17 jobs:

- The State Printer was the lowest cost provider on 8 jobs (47 percent).
- The State Printer was among the lowest three bids on 12 jobs (71 percent).
- None of the private print shops had the lowest bid for more than one job.

If the Legislature chooses to remove the prohibition against agencies obtaining bids from private vendors, we would support that change and encourage state agencies to also work with the State Printer to select the best option, which includes factors such as cost, timeliness, confidentiality and quality.

Governor Gregoire has proposed legislation this session that would consolidate the Departments of Printing and General Administration and portions of three other agencies into a single agency to increase efficiency and realize savings. If the legislation passes, contracting and printing functions would be housed centrally. One of the new agency's tasks would be to determine the process for printing procurement, in accordance with the law and other state purchasing practices such as tiered competition.

Although we agree in theory with the audit's general conclusion about competition, we have remaining questions about the assumptions used to estimate possible savings. For example, the assumption that a decentralized approach (agencies manage their own procurement) would be as efficient as centralized procurement is highly unlikely. A decentralized approach would weaken the state's negotiating position by diluting its buying power. It would also require agencies to hire

subject-matter experts for printing procurement or develop redundant knowledge or strategies to reduce printing costs.

In addition, the "potential annual savings" are based on a best-case scenario, or soliciting bids only on those eight job types where it is known that a lower price was available. As mentioned in Appendix D of the audit, costs would be higher if all jobs were put out for bid, especially where strong evidence already exists that the State Printer is the lowest bidder (e.g., envelopes).

We agree that current law unnecessarily complicates the operations of the State Printer, and we support removal of the Franklin Guide price cap. A repeal of this language has been included in the Governor's proposed legislation to consolidate central service functions.

The State Printer implemented a new cost-finding system approximately three-and-a-half years ago. When the audit began, the State Printer was still using the first-generation version of that tool. It is currently migrating to a more streamlined approach in the new production/financial system that will allow regular updating of its budgeted hourly rate.

Action Steps and Time Frame

- ▶ Support current legislation to consolidate central services. *Office of Financial Management and Cabinet agencies*. April 2011 or end of current legislative session.
- ▶ Dependent on legislative outcomes, develop criteria, rules and policies for bidding on printing services. *Agency in charge of printing*. Timeline dependent on law.
- ▶ Dependent on legislative outcomes, evaluate options for providing printing services and develop processes that best meet agency needs and the intent of competition. *Agency in charge of printing*. By July 2012.

ISSUE 2: In-house print shops duplicate services available from the Department of Printing. As a result, most state printing equipment is used at only a fraction of its capacity.

RECOMMENDATION: Reduce the number of print shops to cut costs and duplication.

RESPONSE

We agree that duplicating functions across agencies is often something to avoid. There are many examples of where the state is taking a reasoned approach to consolidation of administrative support services, including small agency accounting, vehicle fleet consolidation, shared email and the State Data Center. Staff members from the Departments of Printing, Information Services and General Administration have been working together over the past 12 months to identify and develop a plan for consolidating print services. The initial work documents the current print capabilities of these agencies. The plan will determine the most cost-effective approach for integrating print services, while minimizing disruption to customers.

However, while we agree with the general premise of not duplicating services, we have concerns about some of the audit's assumptions and conclusions about the current use of equipment. For example, the audit did not evaluate peak capacity printing needs of the state. The auditor determined capacity based on maximum output under ideal conditions as reported by the equipment manufacturers. This is like saying that if you and your neighbor only use your ovens an hour a day each, you are only using 5 percent of your maximum capacity to heat food, and you should sell one oven and share. Job complexity, operator skill and scheduling will determine

actual capacity. Without understanding when agencies' crunch times occur, we could just as easily end up with too few resources to meet the peak demand as too many.

In addition, some underuse of equipment could be the result of agencies using strategies to reduce printing and paper costs. If equipment is owned, we don't realize many savings by getting rid of it. If equipment is leased, we can stop renewing the leases, but that would not lead to immediate savings. If equipment is on a print-management contract already, the state is paying for the output, not the equipment, supplies or maintenance, so there likely would not be any savings at all.

The cost savings projected from cutting agency print shops assumes the work those print shops currently do is identical to what the State Printer does, in terms of staff time and equipment use per unit of volume. Most of the agency print shops are mainly or exclusively digital, and a large portion of the State Printer's work is not. Therefore, extrapolating data from the State Printer's current workload to what it would be after absorbing additional work from several diverse agencies may not be a valid method for estimating cost savings.

We support the idea of coordinating and/or managing printing services through one entity, such as the Governor's proposed new department. However, before making large-scale changes in agencies, we need to fully understand the ramifications of eliminating certain printing capabilities. It is important to balance the need to contain costs with any unique needs of agencies to meet their statutory obligations and customer needs. Examples of questions that need to be explored further are:

- Do some agency print shops represent "centers of excellence" that are able to more efficiently and effectively provide printing services for certain jobs? Could these print shops be leveraged to assist state printing needs?
- Do certain agency print shops provide additional services that go beyond printing, such as providing specialized quality reviews of technical documents?
- Are the printing functions tightly coupled with other processes in the agency which would result in costs to the agency if the processes changed significantly?
- Would transportation costs for printing in Olympia and shipping to outlying locations outweigh having printed copies done on-site?
- Are there adverse consequences for outsourcing due to federal restrictions or confidentiality/security issues?

Action Steps and Time Frame

- With the agency in-house print shops, evaluate more fully the options for consolidating print shops and/or coordination and management of print shops statewide. *Agency in charge of printing.* By June 2012.
- Transition work under way on consolidation of the largest agency print shop (Department of Information Services) with the State Printer, either independently or as part of the Governor's proposed consolidation of central service functions. By December 2011.

ISSUE 3: Washington does not have an overall strategy to contain the costs of office-based printing, which accounted for 46 percent of the state's printing costs in 2010.

RECOMMENDATION: Adopt statewide cost-containment strategies.

RESPONSE

We support a comprehensive effort to contain the costs of office-based printing. Steps we have taken over the past several years have provided a solid foundation for expanding proven strategies statewide.

We are pleased that the audit validates the use of managed print as one proven strategy for containing printing costs. In 2005, the first managed-print contract was established with the Department of Ecology; current annual savings are estimated at \$360,000. In 2006, print assessments began at state agencies. In 2007, Governor Gregoire encouraged agencies to complete print assessments by including them as a measure in her Government Efficiency accountability forums. Print assessments are the first step toward implementing managed print. Thirty-four assessments have either been completed (32) or are in progress (2), including three for non-state agencies. Estimated annual savings from all assessments for state agencies, as identified by the assessment vendors, is more than \$1.8 million. This legislative session, the Governor's proposed bill to consolidate central services mandates managed print for agencies with more than 1,000 full-time employees.

The state has taken many steps to contain administrative costs, including reducing the use of paper. For example, since at least 2005, agencies have had efficiency goals in place for state operations as a result of an executive order (EO 05-01). According to the most recent Sustainability Report, office printing was reduced from Fiscal Year 2003 to Fiscal Year 2009 by nearly 13 percent. In Fiscal Year 2009, state agencies used about 15 reams of paper per FTE. That figure is 25 percent below the national average for office workers, as estimated by the U.S. Environmental Protection Agency.

Although we support a statewide strategy, we have remaining questions about how the percentage of "office-based" state printing costs was determined. The accounting category used to estimate costs includes expenses such as outsourced printing costs and agency purchases from the State Printer. Using these data to estimate the volume of "office-based" printing and calculate savings estimates likely distorts the possible savings.

Action Steps and Time Frame

- Develop strategy to meet printing needs across state government. *Agency in charge of printing.* By July 2012.
- See action steps under Issue #1 on competitive bidding.
- Share audit report with higher education agencies and discuss strategies for reducing costs of desktop printing. *Agency in charge of printing.* By August 2011.
- Develop common guidelines for reducing costs of all office printing. *Agency in charge of printing.* By December 2011.



Washington State Legislature

To: Brian Sonntag, State Auditor
From: Tom Hoemann, Secretary of the Senate
Barbara Baker, Chief Clerk of the House of Representatives
Date: April 14, 2011
Subject: Printing Services Audit / Legislative Management Response

The Legislature appreciates the time and effort the State Auditor's Office has devoted to examining statewide printing. We agree with the goal of reducing the cost of government, and we applaud the audit's objective of furthering this goal by reducing the state's printing costs.

We believe the best solution to reducing printing costs is to ultimately reduce the amount of printing required. With this solution in mind, the Legislature has recently pursued a transformational use of technology, which has not only substantially reduced our printing needs, but also expanded citizens' access to legislative information. These transformation strategies, described further below, have produced significant results—for example print volumes in FY 2010 were 36% below the prior year, with a total reduction of 51% over six years.

The audit recommends that the Legislature consolidate printing equipment and staff with the Department of Printing. The Legislature currently does use the Department of Printing for many printing needs and we will continue to look for additional opportunities to utilize the Department's services. While we agree that eliminating excess capacity can help reduce costs, there are also other important considerations in the legislative arena. The Legislature intends to maintain certain in-house printing capabilities for the following reasons:

- Legislative publication production staff needs to be very knowledgeable about legislative processes, regulations, and ethics rules to ensure publications meet the needs of the institution and individual legislators. Delegating publication responsibilities to any other organization would be problematic from this perspective.
- The content of some documents remains confidential until they are officially introduced; that confidentiality must be maintained through the printing process.
- More than half of the publication staff consists of technicians who design both electronic and printed publications to meet esthetic, as well as legislative rule, needs.
- Institutional publication requirements include just-in-time publication of bills, bill analyses/bill reports, legislative calendars (essentially agendas), the Revised Code of Washington, the Washington Administrative Code, the Washington State Register, and the official Journals of the House and Senate.
- Whether electronic or printed, legislative publications are focused on legislative needs—needs to inform legislators, the public, and state agencies about issues, developments, and proposed legislative solutions.

- Two-thirds of legislative copying occurs during legislative sessions—between January and April of each year.

Legislative Print Management

The executive, legislature, and judiciary are constitutionally recognized as separate branches of government with specific governing roles to ensure checks and balances among the branches. The Legislature is committed to the effective use of state resources including effective publication solutions. Oversight for legislative operations resides with House Executive Rules and Senate Facilities and Operations Committees, with House and Senate administrations providing day-to-day operational management. Administrations, with the support of the oversight committees, have streamlined legislative publications and are committed to continuing that effort while meeting legislative requirements.

Because of these legislative timeframes and circumstances, the agreement that supports the legislative copier fleet is unique. The Legislature makes no up-front investment in devices with standard configurations. There is no term commitment and no guaranteed volume requirements associated with acquisition of machines. Appendix E of the audit report analyzing equipment utilization faults the Legislature for having excess capacity without acknowledging that two-thirds of legislative copying occurs during the four months of legislative sessions. The copier agreement and installed printing devices were designed with that utilization in mind; the Legislature has incurred costs solely on a cost-per-copy basis with no detrimental impact of unused capacity. The actions the Legislature has taken to reduce printing have led to down-sizing the models and number of its fleet equipment effective at agreement renewal on July 1, 2011.

Legislative Publishing Transformation

Legislative processes have been transformed through extensive use of information technology (IT). Wide use of IT products, such as personal digital assistants (PDAs), has led to broader application of electronic presentation techniques for legislative information. Changes have resulted in significantly reduced volumes of paper-based information products and more streamlined legislative processes. Evaluation of legislative paper-based processes for possible streamlining is a continuing effort by the Legislature.

Efforts to reduce printing include:

- Development and implementation of an electronic legislative Floor Activity Report (FAR) that replaced paper-based floor books so that members see the floor schedule for the day with links to the bills, amendments, bill reports, research, and bill notes instead of a huge binder of documents.
- Development and implementation of a legislative Electronic Bill Book (EBB) that replaced voluminous bill books used in committee hearings with an electronic version with access to all committee-related information. As with all electronic publications, that information can be changed easily and frequently right up until committee meeting time, thus avoiding reprinting and the labor-intensive process to replace the contents of the published book.
- Online access to all legislative publications, thus reducing the number of printed copies significantly and ensuring the information is as up-to-date as possible.
- With the prospective enactment of HB 1479, digital versions of session laws, the Revised Code of Washington, the Washington Administrative Code, and the Washington State

Register will be provided without charge and a fee will be charged for printed versions, further reducing printed publications.

- The Legislative Information Center is using on-demand printing to provide printed versions of legislative documents to avoid overprinting.
- Use of brochure and booklet formatting of legislative documents has reduced printing costs, paper consumption and postage costs for mailings to the public
- Other more general process changes that have contributed to significant reductions in paper-based information products include:
 - Use of listserv services and other electronic techniques to provide legislative information, newsletters, surveys, and updates to committee agendas to constituents
 - Online proofreading of documents
 - Scanning of documents to a *.pdf format and posting electronic versions for wide accessibility
 - Use of electronic message routing
 - Termination of printing the bi-weekly Washington State Register and making the online version the official version

The Legislature continues to make extensive use of complementary and augmented services provided by the DOP. The Legislature uses DOP to complete larger documents that are not defined as just-in-time projects. These might include documents in numbers where printing is still more cost-effective than copying; where trimming, folding, addressing, sorting and mailing processes are required, such as in member newsletter mailings; and where binding and foiling are required, such as in the Legislative Manual or the Journals.

Legislative best practices for output equipment have been implemented and include:

- The legislative copier fleet consists entirely of digital multifunctional networked devices. The fleet is centrally managed for all participating legislative agencies.
- During periods of extended idle time, machines are placed in a quiet state and placed in a sleep state over prolonged periods of idle time
- Redirecting paper-based output work to production workgroups is encouraged
- Default settings for multifunctional devices include:
 - Two-sided output
 - Black and White selection for machines with color capabilities
- Application of multi-images per page to produce booklets and brochures is an emerging practice

One reason the Legislature has been able to reduce paper-based publications so substantially is its public Web site. The many documents associated with the legislative process are available to the general public in electronic formats. The Washington State Legislature's public Web site was recently recognized as best in the nation among state legislatures for its information content and ease-of-use.

This video provides an overview of how the Legislature has used technology to make the Legislature more open, accessible, and understandable. <http://www.youtube.com/watch?v=yMRx5AiOUJo> Because of the web site, the demands for paper copies of bills, amendments, agendas, and calendars have decreased significantly.

The actions the Legislature has taken have resulted in reduced overall volumes (images) of approximately 51 percent (51%) from July 1, 2004 through June 30, 2010. Ongoing reductions seen in fiscal years 2010 and 2011 highlight the significance that self-imposed session rules can have on

paper-based volumes. The Legislature took deliberate steps preceding the 2010 Session and 2011 Session to reduce its printing requirements still further. In fiscal year 2010, paper-based volumes were 36 percent (36%) below the previous year's totals; fiscal year 2011 totals to date are significantly below those of fiscal year 2010.

With the help of IT, the public site, multifunction copiers, copier management, access to real-time information and different methods of communicating with constituents, the Legislature has taken steps to reduce the need for printing and to manage the printing it does do.



Rob McKenna
ATTORNEY GENERAL OF WASHINGTON

Administration Division
PO Box 40100 • Olympia, WA 98504-0100 • (360) 753-6200

April 15, 2011

The Honorable Brian Sonntag
Washington State Auditor
P.O. Box 40021
Olympia, WA 98504-0021

Olympia, WA 98504-0021

Dear Mr. Sonntag:

Thank you for your consideration of our technical comments. We appreciate specifically the inclusion of information in your final report that references and recognizes that the document management services unit of the Attorney General's Office provides a number of services beyond those print and copy services provided by Department of Printing.

We appreciated your documentation that a significant amount of data provided by the AGO was not included in our usage numbers in your consultant's report, thus providing an inaccurate representation of equipment utilization for our agency.

We are in agreement with the additional information you provided, in the issue definition section, which noted that the advantages provided to agencies by in-house print shops included "faster turnaround time, greater convenience, increased security and greater proximity of subject matter expertise for specific agency products than that provided by the Department of Printing."

Regrettably, despite this additional perspective, your revisions fall short of our preferred business decision of removing our agency from the recommendation of consolidation. Please be clear that the AGO supports efficiency in government, especially with the difficult budget challenges facing the state. We have demonstrated our commitment to working collaboratively to reduce redundancy and leverage resources to recognize savings. However, we must be assured that such collaborative efforts don't impede the ability of our agency to meet its legal obligations on behalf of the state. Unfortunately, if the print shop consolidation recommendation report, as written, were adopted, our ability to meet those obligations would indeed be negatively impacted.

You note in your report that over 60% of the work completed at our agency document services shop is electronic litigation support. We provided data to your consultant to demonstrate that this portion of our business is rapidly increasing, primarily due to the growing electronic nature

ATTORNEY GENERAL OF WASHINGTON

April 15, 2011

Page 2

of how the courts operate. This service is not provided by the Department of Printing and your report in no way addresses how this significant workload will be completed by the AGO if the resources and funding to handle them are transferred to the Department of Printing.

The final report includes in its assumptions for reduction and savings through consolidation all of the staffing and budget numbers for our document services unit. This is, despite the fact that you likewise recognize there is a large portion of those figures attributed to non-print/copy functions, services outside the scope of the audit. This same concern holds true with other AGO services such as videography, audio and video duplication, and transfer and video editing.

A paramount concern of our agency, and another key component alluded to but not clearly addressed in your report, is how attorney-client privilege, confidentiality and the critical timing of legal documents and filings will be addressed under the consolidation recommendation. These elements have consistently remained significant business drivers for retaining in-house services, where there is direct control and oversight of employees performing the work.

The scheduling and coordination of work to complete briefs, orders and other legal elements is critical, since missing due dates can have significant financial and legal implications for the state. One adverse judgment as the result of a missed deadline could easily cost the state an amount equal to, or in excess of, those identified as potential savings to be achieved by consolidating our AGO work into the Department of Printing.

Finally, as referenced in the report, there is high value in having employees do this work who understand the legal environment and legal terms, so they are familiar with the materials. Absence of this knowledge introduces risk and could result in legal challenges and costs to the state.

Given all these factors, it is not clear to our agency that your recommendation is one that allows us to meet legal obligations and maintain appropriate risk levels associated with the confidential nature of the work performed by the Attorney General's Office. While we respect your evaluation of the statewide function as a whole, it is not evident that the information offered relative to key business drivers and agency specific services were a factor in your final recommendation for print consolidation.

Thank you for the opportunity to provide a response to this performance audit report.

Sincerely,



RANDY J. PEPPLER
Chief of Staff



SUPERINTENDENT OF PUBLIC INSTRUCTION

RANDY I. DORN OLD CAPITOL BUILDING • PO BOX 47200 • OLYMPIA WA 98504-7200 • <http://www.k12.wa.us>

April 15, 2011

The Honorable Brian Sonntag
Washington State Auditor
PO BOX 40021
Olympia, WA 98504-0021

Dear Mr. Sonntag:

Thank you for the opportunity to respond to the audit. The following is the Office of Superintendent of Public Instruction's (OSPI) official response for the report:

OSPI concurs that state agencies should be allowed to obtain bids from private vendors and from Department of Printing (DOP) for all jobs that cannot be done in-house.

OSPI does not concur with the recommendation to consolidate its in-house print shop with DOP. The performance audit reviewed FY10, and this year is not reflective of OSPI's typical level of activity. During FY09, several policy decisions were made that OSPI knew would significantly impact print center volumes. OSPI made a conscious decision to subsequently evaluate the level of activity and from that data make adjustments to both equipment and staffing (i.e., costs) that would reflect our new level of printing activity.

OSPI's print center began as a result of the high cost of printing services provided by the DOP. OSPI investigated alternate solutions, and after three years of extensive research, the OSPI print shop was established in 2005, realizing an average annual savings of over \$100,000.

OSPI's print center remains operational because printing rates are less than rates that can be obtained from either private vendors or DOP. Additionally, turnaround time is less than half that of private vendors or DOP.

OSPI is committed to continually reevaluating costs and printing practices to ensure that all funds are used in the most effective and efficient manner.

Sincerely,

A handwritten signature in cursive script that reads "Ken Kanikeberg".

Ken Kanikeberg
Chief of Staff

APPENDIX A: INITIATIVE 900

Initiative 900, approved by Washington voters in 2005 and enacted into state law in 2006, authorized the State Auditor’s Office to conduct independent, comprehensive performance audits of state and local governments.

Specifically, the law directs the Auditor’s Office to “review and analyze the economy, efficiency, and effectiveness of the policies, management, fiscal affairs, and operations of state and local governments, agencies, programs, and accounts.” Performance audits are to be conducted according to U.S. General Accountability Office government auditing standards.

In addition, the law identifies nine elements that are to be considered within the scope of each performance audit. The State Auditor’s Office evaluates the relevance of all nine elements to each audit. The table below indicates which elements are addressed in Printing Services audit. Specific issues are discussed in detail in the Audit Results and Recommendations sections of this report.

I-900 Element	Addressed in audit
1. Identification of cost savings	Yes. The audit identifies several cost-saving opportunities and estimates up to \$13.6 million in annual savings after full implementation.
2. Identification of services that can be reduced or eliminated	Yes. We recommend closing print shops that are operated by executive and legislative agencies because they duplicate services already available through the Department of Printing.
3. Identification of programs or services that can be transferred to the private sector	Yes. The audit recommends increasing the use of private printers by opening state printing services to competition.
4. Analysis of gaps or overlaps in programs or services and recommendations to correct them	Yes. We identify significant duplication in services and recommend reducing costs by consolidating printing services.
5. Feasibility of pooling information technology systems within the department	No. However, this audit addresses using shared technology to bring down state costs.
6. Analysis of roles and functions of the department, and recommendations to change or eliminate departmental roles or functions	Yes. We analyzed selected program activities and recommended improvement opportunities.
7. Recommendation for statutory or regulatory changes that may be necessary for the department to properly carry out its functions	Yes. We recommend lawmakers revise the state law that governs the operation of agency print shops.
8. Analysis of departmental performance data, performance measures, and self-assessment systems	Yes. We recommend that price data be collected over time to hold down costs.
9. Identification of best practices	Yes. We cite other states’ print shops and the managed print concept.

APPENDIX B: METHODOLOGY

To understand the Department of Printing's progress on issues we identified in last year's review, we followed up on:

- The Department's fiscal position.
- Progress made in fixing the Monarch financial reporting system.
- Changes made to Printing's pricing structure.

To determine if the Department of Printing's business model could be improved, we:

- Interviewed printing personnel from other states to identify leading practices or alternatives for providing service.
- Interviewed Department of Printing staff and customer agencies, and compared responses and best practices to the Department of Printing's current business model and business models used in other states.
- Obtained data from private printers in Washington state for price comparisons.
- Interviewed industry experts.

To determine if state printing costs could be reduced, we:

- Interviewed printing personnel from other states to identify leading practices or alternatives for providing service.
- Compared leading practices being used in other states to current practices in Washington.
- Interviewed printing personnel from state agencies with print shops to understand print shops' operations, volumes and capacities.
- Analyzed the capacity and utilization of the state agencies' printing equipment to identify opportunities for consolidation.
- Consulted with industry experts to identify technologies and leading practices that could reduce costs in Washington.

To identify strategies used to hold down printing costs in other organizations, we conducted telephone interviews with states and other entities that have demonstrated leading practices or recently changed their operations, such as consolidating or centralizing print services. When possible, we reviewed recent studies and reports.

We interviewed printing representatives from:

- U.S. Government Printing Office
- Nevada
- Kansas
- Oregon
- Colorado
- Iowa
- Pennsylvania
- Houston Independent School District
- University of Texas-Austin

We then summarized potential savings that could be achieved by increasing the use of private printers outside of the Department of Printing.

APPENDIX C: PRICE COMPARISONS

To evaluate potential savings that could be achieved by allowing agencies to solicit work from private printers, we:

- Compared prices charged by the Department of Printing on common products produced by the Department of Printing to bids from private printers in Thurston County.
- Compared Printing's 2010 prices to the prices listed in the In-Plant Printing and Mailing Association's (IPMA) 2010 national pricing study. The 2010 study is the most recent study available and contains data from 2009. IPMA is an industry group, formed in the mid-1960s, which supports in-house corporate publishers, printers and distributors.
- Analyzed price comparisons obtained by Printing for its 2010 benchmarking study.

Prices at the Department of Printing

The Department of Printing self-reported pricing in response to our data request. We also looked at the Department of Printing's fiscal year 2010 revenue for print jobs completed internally. This information came directly from the Department and includes projects completed for state agencies, including public universities and community colleges, local governments and other jurisdictions.

2010 Thurston County Comparison

Five Thurston County printers submitted bids on newsletters, self-mailers, binders, letterhead, posters, books and envelopes. Not all companies bid on all the products. As shown in the **table below**, the Department's prices were lower than most of the private printers' bids. Bids received reflect a small sample size and prices offered at a single point in time. As such, prices could vary at future dates.

Public-private price comparison (Department of Printing price in boldface)						
Product	Lowest Price					Highest Price
Newsletter	\$2,789	\$3,325	\$3,368	\$4,000	\$4,826	\$6,091
Self-mailer	\$1,359	\$1,985	\$2,047	\$2,214	\$2,754	\$3,329
Binder	\$1,913	\$2,077	\$2,977			\$3,307
Letterhead	\$449	\$610	\$669	\$918		\$1,265
Poster	\$418	\$667	\$837			\$1,175
Book	\$76	\$79	\$189			\$298
Envelope	\$35	\$77	\$133	\$177		\$179

Source: State Auditor's Office comparison. The following printers responded to our request for bids: Kaye Smith, West Coast, Consolidated, Printing Control and Capitol City Press.

2010 Department of Printing Benchmarking Survey

Printing conducts an annual survey to assess the overall competitiveness of its prices. Commercial printers were asked to bid on 17 jobs selected by Printing to represent its normal range of work. We analyzed the 2009 benchmarking survey in our 2009 performance review, noting that the survey included relatively few bids from private printers, and that the actual prices did not reflect a consistent grade of recycled paper, which prevented an "apples-to-apples" comparison. In 2010 the Department improved its study by getting actual bids from private printers on comparable jobs with a consistent grade of recycled paper for each job.

We compared the Department's prices on 17 jobs with the private printer bids. The jobs included brochures, letterhead, self-mailers, postcards, books, envelopes and business cards. The 2010 comparison showed the Department's prices were the lowest for eight jobs but were more than 5 percent above the lowest bid

for eight jobs, which could result in savings if outsourced to the private sector. We selected the 5 percent threshold because the Department charges a 5 percent administrative fee to manage outsourcing work. Further analysis of potential savings can be found in **Appendix D**.

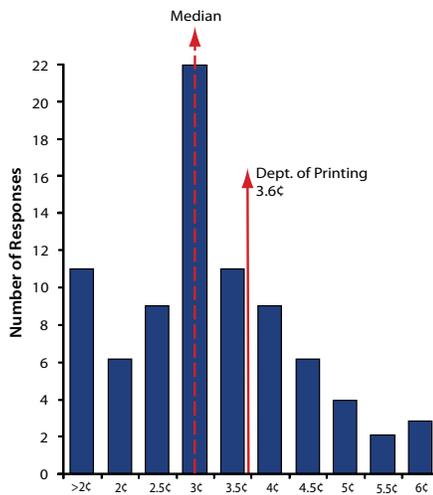
2010 National price comparison

We compared the Department’s prices on three standard products with median prices reported in the 2010 In-Plant Print and Mailing Association (IPMA) National Pricing Study, which contained survey results from 2009. The IPMA asked public and private printers across the country several questions, including prices for specific products, operating budgets, annual sales and whether they would break even on the prices charged for actual products produced.

Our comparison of the Department of Printing’s prices to the prices in the 2010 IPMA pricing study confirms that prices can vary widely, and that the Department’s prices are below the national median for some jobs and above the national median for others. The results are shown in the pages that follow. These comparisons are general and do not contain the level of detail that our local comparisons do with recycled paper content and other job-specific information.

Letter-Sized, One-Sided, Black-and-White Prints

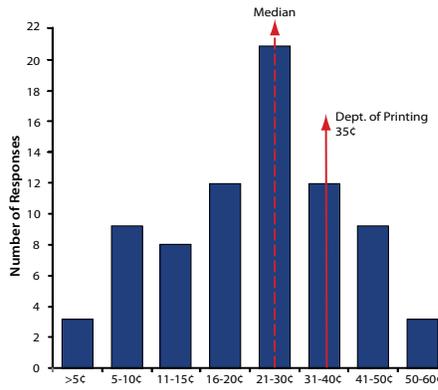
Printing said it charges 3.6 cents per page for a single black-and-white, one-sided page, compared with the IPMA national median of 3 cents per page.



Source: IPMA Print Pricing Study 2010.

Letter-Sized, One-Sided, Color Prints

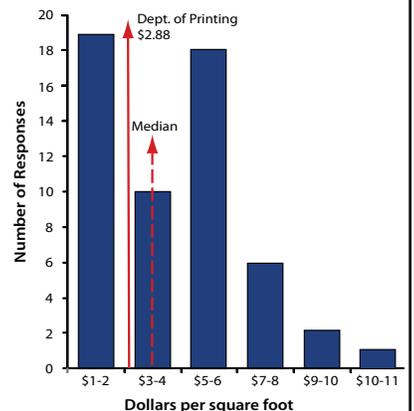
Printing said it charges 20 cents to 35 cents for a one-sided, letter-size color page, compared with the IPMA national median of 21 cents to 30 cents.



Source: IPMA Print Pricing Study 2010.

Posters

Printing said it charges \$2.88 per square foot for large-format color posters, compared with the IPMA national median of \$3 to \$4.



Source: IPMA Print Pricing Study 2010.

APPENDIX D: SAVINGS FROM COMPETITION

We estimate that increasing competition for state printing services by allowing agencies to solicit bids from both the Department of Printing and private sector printers could save up to \$1,086,000 per year. Opening competition to the private sector would allow agencies to take advantage of the lowest price, whether from the Department of Printing or private printers. While additional costs would be incurred from soliciting and managing outsourced work, our conservative estimate shows savings would likely outweigh the costs.

To project potential savings from outsourcing, we used the Department of Printing's 2010 benchmarking survey (see **Appendix C**). The survey gathered price information for 17 common print jobs that accounted for 54 percent of the Department's fiscal year 2010 revenue. The 2010 pricing comparison showed a private-sector price advantage over the Department's prices for eight jobs. We assume these eight types of print jobs would be done at the lowest private bid and that the Department would manage the bid process, which would add 5 percent to the cost of the job for administrative expenses. To calculate the potential annual savings we:

1. Calculated the private sector price advantage as a percentage of the Department's price for the eight job types;
2. Adjusted the private-sector price advantage by reducing it by 5 percent to reflect the administrative cost for the Department to manage the outsourcing process;
3. Multiplied the adjusted private price advantage percentage by the Department's fiscal year 2010 revenue for the specific job type;
4. Summed the savings across the eight job types; and
5. Subtracted implementation costs for hiring additional procurement staff to handle the Department's increased workload (see discussion below).
 - Additional costs are only associated with bidding out jobs where prices were actual lower. These costs would be higher if the Department of Printing was required to bid out all jobs.

Our low-range savings estimate assumes no cost savings and additional administrative expenses for procurement staff. Our high-range estimate assumes the savings from competitively bidding print jobs would more than offset the additional administrative expenses (see **table on page 51**).

Additional Costs

We considered the additional costs for resources to manage the procurement process. Because the Department of Printing has staff in place to manage this process, we used its current FTE costs to calculate additional procurement resources that would be necessary. Currently, the Department of Printing has two direct FTEs and 0.85 indirect FTEs employed to handle work associated with outsourcing \$9.6 million of print jobs. Using the Department of Printing's rates, we assumed that a proportional number of FTEs would be required to handle additional outsource work. For example, 2.85 FTEs currently handle \$9.6 million in outsourced work, so 1.5 additional FTEs would be required to handle the additional \$5 million in outsourced work.

Agency savings potential for jobs covered by the 2010 survey

The 2010 benchmarking survey included jobs that represented 54 percent of the Department's fiscal year 2010 revenue. The survey did not include two other job categories — forms and statements — that together accounted for 20 percent of its revenue. Other revenue not covered by the survey included low-revenue job types, paper and revenue from outsourcing (approximately 3 percent of total revenue). We did not extrapolate the results of our analysis to jobs outside of the survey because we did not know how the Department's prices for these jobs compare with those of private printers. The results of our analysis, therefore, are conservative and apply only to the job types addressed in the survey.

Increased Competition Cost Savings Analysis			
		Potential Cost Savings After Full Implementation	
		Low Range	High Range
Additional state procurement resources (1.5 FTE)		(\$120,000)	(\$120,000)
FY2010 PRT printing production revenue	\$23,149,449		
FY2010 PRT revenue for jobs with private sector price advantage	\$4,992,487	\$0	\$1,206,000
Net Savings to State		(\$120,000)	\$1,086,000

APPENDIX E: EQUIPMENT USE RATES

To determine use rates, we focused on more expensive devices such as departmental printers and equipment with relatively high page-per-minute outputs. These devices have more features and greater capacity and require greater usage to justify their purchase. For example, a 12-page-per-minute color printer that costs \$300 does not require the same cost and use justifications as a 150-page-per-minute machine that costs \$250,000.

Our analysis considered 100 percent use to be a 6.5-hour maximum run time during one shift for the largest agency production equipment (70 ppm or higher), and a 5.5-hour run time during one shift for smaller equipment (50 ppm to 65 ppm.) Run times of 5.5 hours and 6.5 hours were established by industry experts from our contractor team. This results in a relatively liberal estimate of what constitutes full use, since all the machines could operate for more hours and more shifts per day.

We determined a maximum and minimum number of pages a piece of equipment could produce in one shift based on equipment page-per-minute rates. For example, a production printer capable of 100 ppm would produce 39,000 pages in 6.5 hours. Over a year, this machine could produce a maximum of 9.4 million pages at 100 percent of capacity, or 4.7 million pages at 50 percent. We considered equipment that did not exceed 50 percent of production capacity to be underused. The table below shows the page-per-minute output of each machine at 50 percent and 100 percent of utilization, agency-reported data about actual pages produced by the machine, and the percentage of utilization for each machine during fiscal year 2010.

Equipment use ranged from two pieces of equipment that were used at more than 100 percent of our capacity definition to 28 pieces of equipment that were used less than 10 percent. Average use system-wide was 38.2 percent.

• Appendix •

Agency	Manufacturer	Model	ppm	50% or min	100% or max	Actual	Actual as % of Max
PRT	Canon	IR150	150	5,850,000	11,700,000	14,192,182	121.3%
PRT	Canon	IR150	150	5,850,000	11,700,000	12,432,944	106.3%
DIS	IBM	infoprint 4000	275	12,870,000	25,740,000	25,184,478	97.8%
DIS	IBM	infoprint 4000	275	12,870,000	25,740,000	25,184,478	97.8%
DIS	IBM	infoprint 4000	275	12,870,000	25,740,000	25,184,478	97.8%
DIS	IBM	infoprint 4000	275	12,870,000	25,740,000	25,184,478	97.8%
ESD	Canon	IR7110	110	5,148,000	10,296,000	8,325,631	80.9%
WSDOT	Xerox	Nuvera 288	288	6,739,200	13,478,400	10,600,000	78.6%
ESD	Canon	IR7110	110	5,148,000	10,296,000	7,491,293	72.8%
PRT	Canon	IR125	125	5,850,000	11,700,000	7,954,314	68.0%
PRT	Canon	IR125	125	5,850,000	11,700,000	6,657,395	56.9%
WSDOT	Xerox	4112	110	5,148,000	10,296,000	5,581,000	54.2%
Total pieces of equipment used above 50%: 12							
ESD	Canon	IR7110	110	5,148,000	10,296,000	4,958,819	48.2%
WSDOT	Xerox	Nuvera 144	144	6,739,200	13,478,400	6,309,320	46.8%
PRT	Canon	IR125	125	5,850,000	11,700,000	5,393,683	46.1%
WSDOT	Xerox	4112	110	5,148,000	10,296,000	3,002,000	29.2%
AG	Ricoh	MP9001	90	4,212,000	8,424,000	2,291,124	27.2%
OSPI	Canon	IR 7110	110	5,148,000	5,148,000	1,354,530	26.3%
PRT	Canon	IR125	125	5,850,000	11,700,000	2,752,762	23.5%
PRT	Canon	IR125	125	5,850,000	11,700,000	2,687,626	23.0%
PRT	Canon	IRC7095	95	4,446,000	8,892,000	1,610,862	18.1%
PRT	Kodak	Nexpress 3200	100	4,680,000	9,360,000	1,623,767	17.3%
OSPI	Canon	5180	80	3,744,000	7,488,000	47,853	16.9%
DSHS	Xerox	Docutech	155	7,254,000	14,508,000	2,400,000	16.5%
Legislature	Canon	iR 7105	105	4,914,000	9,828,000	1,502,348	15.3%
PRT	Canon	IRC7105	105	4,914,000	9,828,000	1,473,429	15.0%
PRT	Canon	IR125	125	5,850,000	11,700,000	1,621,346	13.9%
Legislature	Canon	iR 7105	105	4,914,000	9,828,000	1,310,480	13.3%
PRT	Canon	IRC7105	105	4,914,000	9,828,000	1,232,348	12.5%
DSHS	Xerox	WorkCenter 4127	120	5,616,000	11,232,000	1,397,508	12.4%
OSPI	Canon	IR 7138	138	6,458,400	12,916,800	1,579,963	12.2%
ESD	Canon	C7000VP	70	3,276,000	6,552,000	742,990	11.3%

• Appendix •

Agency	Manufacturer	Model	ppm	50% or min	100% or max	Actual	Actual as % of Max
OSPI	Ricoh	C900	90	4,212,000	8,424,000	920,508	10.9%
OSPI	Ricoh	MP907	90	4,212,000	8,424,000	906,388	10.8%
Legislature	Canon	iR 105	105	4,914,000	9,828,000	1,032,641	10.5%
L&I	Ricoh	Pro906EX	90	4,212,000	8,424,000	752,400	8.9%
L&I	Ricoh	Pro906EX	90	4,212,000	8,424,000	752,400	8.9%
Legislature	Canon	iR 105	105	4,914,000	9,828,000	849,654	8.6%
Legislature	Canon	iR 105	105	4,914,000	9,828,000	814,100	8.3%
PRT	Canon	IRC7095	95	4,446,000	8,892,000	733,581	8.2%
Legislature	Canon	iR 105	105	4,914,000	9,828,000	710,465	7.2%
DSHS	Ricoh	907ex	80	3,744,000	9,360,000	600,000	6.4%
DSHS	Ricoh	907ex	80	3,744,000	9,360,000	600,000	6.4%
ESD	Canon	IR5180	50	1,980,000	3,960,000	252,536	6.4%
PRT	Canon	IRC7105	105	4,914,000	9,828,000	566,559	5.8%
OSPI	Ikon	CPP660	60	2,376,000	4,752,000	261,039	5.5%
PRT	Canon	IRC7095	95	4,446,000	8,892,000	447,506	5.0%
PRT	Canon	IR125	125	5,850,000	11,700,000	590,723	5.0%
DSHS	Ricoh	MPC6000	55	2,178,000	4,356,000	150,000	3.4%
Legislature	Canon	iR 105	105	4,914,000	9,828,000	317,333	3.2%
PRT	Canon	IRC7095	95	4,446,000	8,892,000	275,598	3.1%
DSHS	Xerox	WorkCenter 7665	65	2,574,000	5,148,000	159,344	3.1%
PRT	Canon	IRC7095	95	4,446,000	8,892,000	268,506	3.0%
Legislature	Canon	IR5182	51	2,019,600	4,039,200	112,626	2.8%
Legislature	Canon	iR 105	105	4,914,000	9,828,000	231,996	2.4%
Legislature	Canon	iR 105	105	4,914,000	9,828,000	207,497	2.1%
AG	Ricoh	MPC5000	50	1,980,000	3,960,000	85,012	2.1%
Legislature	Canon	IR5185	51	2,019,600	4,039,200	58,659	1.5%
L&I	HP	9000DN	50	1,980,000	3,960,000	57,600	1.5%
L&I	HP	9000DN	50	1,980,000	3,960,000	57,600	1.5%
PRT	Canon	IRC 5000	50	1,980,000	3,960,000	21,791	0.6%
OSPI	Canon	7105	105	4,914,000	9,828,000	1,261,892	0.5%
Total pieces of equipment used at or below 50%: 50							

Source: Auditor's Office interpretation of agency self-reported data.

APPENDIX F: SAVINGS FROM CONSOLIDATION

Savings from consolidating agency print shops with Printing facilities will likely stem from increasing printing services' efficiency statewide and reducing duplicative equipment, maintenance, staff and administrative costs.

To evaluate potential savings from optimizing equipment levels and consolidating agency print shops, we used the information from our equipment utilization analysis, discussed in **Appendix E** and considered:

- Unused capacity and equipment savings.
- Personnel savings.
- Facility savings.
- Additional costs.

For this analysis we excluded print shops operated by state colleges and universities.

One agency print shop consolidation was already under way when we conducted this audit. Department of Printing managers reported that they expect to have incorporated a significant portion of the Department of Information Services' printing operation into their facilities by July 1, 2011. They predicted the consolidation would save about \$10 million over six years from reduced costs for personnel, supplies, equipment and facilities.

Since the DIS consolidation had already begun, we did not include those savings in our analysis. Nor did we include the print shop at Corrections, because of its use for inmate rehabilitation and job-skills training.

After removing DIS and Corrections from our calculations, we found the current unused capacity at Printing and its copy centers could absorb all of the printing volume at the remaining agency print shops. Even after absorbing that work, the Department would still retain excess capacity needed for just-in-time printing and quick-turnaround jobs.

Under this scenario, we estimate consolidating the agency print shops into the Department of Printing could reduce costs by \$1.8 million to \$1.9 million annually after full implementation.

Unused Capacity & Equipment Savings Assumptions/Methodology

We calculated the amount of unused printing capacity at the Department of Printing and in-house agency print shops based on actual production amounts reported by the agencies. Our analysis compared actual production, measured in pages, to actual capacity as detailed in **Appendix E**.

While print shops do additional work outside of page production, the industry standard of page/impression per minute was the most readily available information and was used to represent print shop output and capacity.

As noted above, we omitted DIS from further analysis because its equipment was being used at 98 percent of capacity and because of the planned consolidation of the DIS print shop within the Department of Printing. Also, we did not consider the print shop at Corrections because its print shop is used for inmate rehabilitation and job-skills training.

Based on our equipment utilization analysis in **Appendix E**, Printing had annual unused capacity of 130 million pages. Total actual use at the agency print shops was 70 million pages. Based on those levels of production and unused capacity, Printing could accommodate all of the printing that took place at the agency print shops in 2010 and still retain 60 million pages of excess capacity. This spare capacity, amounting to 31 percent of total capacity, is beneficial because it would preserve flexibility for large jobs, or for just-in-time printing at the Department.

To calculate potential equipment savings, we totaled equipment and maintenance costs for all agency print shops except the Department of Printing, DIS, and Corrections. Because the Legislature operates under a cost-per-copy agreement that includes all equipment and maintenance costs, there were no separate equipment costs listed out for the Legislature. Equipment costs from the remaining agencies totaled \$1,304,000. We project that these costs could be reduced after current leases expire and the consolidated equipment at the Department of Printing is properly aligned with the demand for statewide printing services.

Personnel-related savings methodology and assumptions

Full-time equivalent (FTE) compensation costs in the table below were reported by the agencies whose print shops we considered for consolidation. Again, we excluded Printing, DIS and Corrections for the reasons discussed above. The remaining agencies reported print shop FTE costs for all print shop employees totaling \$2,501,000.

To estimate FTE needs and compensation costs following consolidation, we applied Printing's FTE productivity rates to statewide production levels including the Department of Printing and other state print shops. The Department's productivity rate was calculated by dividing the total volume of work performed at the Department of Printing by the Department's production staff, equaling an estimated annual productivity rate of 3 million pages per FTE.

To calculate the number of full-time positions required to maintain current production volumes, we divided the total volume at the agency print shops (excluding DIS and Corrections) of 260.2 million and divided by the productivity rate from the Department of Printing above to determine that 87 FTEs would be needed. The net result is a reduction in 17 FTEs from fiscal year 2010 levels.

We then applied average salaries and benefits per FTE of \$60,000 to the 17 positions that would be reduced, which projects annual savings of about \$1 million annually.

Facilities Savings Assumptions/Methodology

Annual facilities costs, typically rent and utilities, were reported by several of the agencies that we considered for consolidation. We excluded Printing, DIS and Corrections for the reasons discussed above. We did not receive print shop facilities cost data from the Superintendent of Public Instruction and DSHS/Western State Hospital, presumably because their costs are included in departmental budgets. The remaining agencies reported total costs of \$437,000.

Because some agency print shops occupy small spaces within agency office space that likely could not be sub-leased, we did not project savings for all reported facility costs. Costs at other agencies, particularly those whose print shops occupy leased spaces, likely could be reduced. We projected savings of 20 percent to 40 percent from fiscal year 2010 costs to determine potential savings from consolidating facilities.

Additional Cost Estimates

We identified two other costs incurred if the print shops were consolidated:

- We estimated \$150,000 in annual legal and administrative costs.
- We estimated that absorbing additional work at the Department of Printing would drive approximately \$393,000 in annual equipment maintenance costs. To calculate these costs, we divided the current equipment maintenance costs at the Department by its actual production volume to come up with a cost per unit of \$.0048. We then multiplied the cost per unit number with the additional volume that will come to the Department from other print shops (81,540,357) to get total additional equipment/maintenance costs that round to \$393,000.

Estimated Costs and Savings after Full Implementation					
	Total	Scenarios		Full Implementation	
	Possible	Worst Case	Best Case	Low Range	High Range
Implementation Costs					
Legal/administrative		(-\$150,000)		(-\$150,000)	
Additional equipment maintenance costs at PRT to absorb additional work		(-\$393,000)		(-\$393,000)	
Cost Savings					
Equipment	\$1,304,000	100%		1,304,000	
FTE	\$2,501,000	17 positions reduced		\$1,014,000	
Facilities	\$437,000	20%	40%	\$87,000	\$175,000
Net Savings to State				\$1,862,000	\$1,950,000
<p>Note: As listed in assumptions above, cost savings are after full implementation. Delays in savings could be postponed based on lease expirations for certain pieces of equipment. Numbers do not add due to rounding.</p>					

APPENDIX G: MANAGED PRINT SAVINGS

We estimate that using a managed-print strategy could produce savings of \$3.2 million to \$10.7 million annually after full implementation.

To determine potential savings, we identified:

- Agencies' total office-based printing costs;
- High and low savings ranges based on the projections by OFM and Gartner, Inc.; and
- Costs to institute managed-print strategies.

Agencies' office-based printing costs

We used the spending reports for fiscal year 2010 provided by the agencies that participated in the audit. For other agencies, including state colleges and universities, we used data from AFRS as shown in sub-object EF. Generally, costs reported by the agencies that participated in the audit were higher than the 112 agencies that reported costs within sub-object EF in AFRS. As a result, reliance on AFRS expenditures likely results in an understatement of total costs. To calculate potential savings for this audit, we estimated total office-based printing costs of \$38.8 million, and then subtracted out office-based printing costs for agencies that have already implemented managed-print. This led to total office-based printing costs of \$37,076,000. State colleges and universities accounted for \$30.7 million of office-based printing costs.

Savings estimates

OFM conducted two separate analyses to determine how much Washington state agencies could save by using managed print. The savings in these analyses are consistent with the estimated savings noted above. First, using Ecology's reported savings as a base, OFM calculated that Washington state agencies could save approximately \$7 million a year through managed print. Second, using information about the projected savings from the 25 agencies that had actually undergone print assessments as a base, OFM calculated that Washington state agencies could save approximately \$9.5 million a year.

The potential savings reported by OFM appear to support the 10 to 30 percent savings reported by Gartner. If the state could achieve 10 to 30 percent savings on office-based state printing costs, managed print would lead to savings of between \$3.2 million and \$10.7 million annually after implementation. Our savings estimate excludes the agencies that have already implemented managed print.

Legal and administrative implementation cost estimates

Legal and administrative implementation costs were estimated using an annual salary, including benefits, of \$100,000 each, for 2.5 additional FTEs. These costs were estimated conservatively based on past experience.

Costs associated with contract management were estimated using the fully loaded annual salary of the Department of Printing's Farm out Manager. Implementation Costs assumes two FTEs dedicated to contract negotiation, management and transition.

Managed Print Analysis Estimated Costs and Savings					
		Scenario Assumptions		Full Implementation	
		Worst Case	Best Case	Low Range	High Range
Implementation Costs					
Contract Management				(\$214,000)	(\$214,000)
Legal/Administrative				(\$250,000)	(\$250,000)
Cost Savings					
Office-Based printing costs (internal agency)	\$38,837,000				
Office-Based printing costs excluding the three agencies that have implemented managed print	\$37,076,000	10%	30%	\$3,708,000	\$11,123,000
Net Savings to State				\$3,244,000	\$10,659,000

APPENDIX H: PRINTING STATUTE

Chapter 43.78 RCW

Public printer — public printing

43.78.010 -- Appointment of public printer

There shall be a public printer appointed by the governor with the advice and consent of the senate, who shall hold office at the pleasure of the governor and until his or her successor is appointed and qualified.

[2009 c 549 § 5146; 1981 c 338 § 6; 1965 c 8 §43.78.010 . Prior: 1905 c 168 § 1; RRS § 10323.]

43.78.020 -- Bond

Before entering upon the duties of his or her office, the public printer shall execute to the state a bond in the sum of ten thousand dollars conditioned for the faithful and punctual performance of all duties and trusts of his or her office.

[2009 c 549 § 5147; 1965 c 8 § 43.78.020. Prior: 1933 c 97 § 4; 1905 c 168 § 2; RRS § 10324.]

43.78.030 -- Duties — Exceptions

The public printer shall print and bind the session laws, the journals of the two houses of the legislature, all bills, resolutions, documents, and other printing and binding of either the senate or house, as the same may be ordered by the legislature; and such forms, blanks, record books, and printing and binding of every description as may be ordered by all state officers, boards, commissions, and institutions, and the supreme court, and the court of appeals and officers thereof, as the same may be ordered on requisition, from time to time, by the proper authorities. This section shall not apply to the printing of the supreme court and the court of appeals reports, to the printing of bond certificates or bond offering disclosure documents, to the printing of educational publications of the state historical societies, or to any printing done or contracted for by institutions of higher education: PROVIDED, That institutions of higher education, in consultation with the public printer, develop vendor selection procedures comparable to those used by the public printer for contracted printing jobs. Where any institution or institution of higher learning of the state is or may become equipped with facilities for doing such work, it may do any printing: (1) For itself, or (2) for any other state institution when such printing is done as part of a course of study relative to the profession of printer. Any printing and binding of whatever description as may be needed by any institution or agency of the state department of social and health services not at Olympia, or the supreme court or the court of appeals or any officer thereof, the estimated cost of which shall not exceed one thousand dollars, may be done by any private printing company in the general vicinity within the state of Washington so ordering, if in the judgment of the officer of the agency so ordering, the saving in time and processing justifies the award to such local private printing concern.

Beginning on July 1, 1989, and on July 1 of each succeeding odd-numbered year, the dollar limit specified in this section shall be adjusted as follows: The office of financial management shall calculate such limit by adjusting the previous biennium's limit by an appropriate federal inflationary index reflecting the rate of inflation for the previous biennium. Such amounts shall be rounded to the nearest fifty dollars.

During the 2009-2011 fiscal biennium, this section does not apply to pilot printing projects authorized by the office of financial management to allow state agencies and institutions to directly acquire printing services.

[2010 1st sp.s. c 37 § 927; 1994 c 82 § 1; 1993 c 379 § 104; 1988 c 102 § 1; 1987 c 72 § 1; 1982 c 164 § 2; 1971 c 81 § 114; 1965 c 8 § 43.78.030. Prior: 1959 c 88 § 1; 1917 c 129 § 1; 1915 c 27 § 2; 1905 c 168 § 3; RRS § 10325.]

Notes:

Effective date -- 2010 1st sp.s. c 37: See note following RCW 13.06.050.

Intent -- Severability -- Effective date -- 1993 c 379: See notes following RCW 28B.10.029.

Promotional printing for

apple commission, exemption: RCW 15.24.085.

beef commission, exemption: RCW 16.67.170.

dairy products commission, exemption: RCW 15.24.085.

fruit commission, exemption: RCW 15.24.085.

honey bee commission, exemption: RCW 15.62.190.

Session laws, legislative journals, delivery to statute law committee: RCW 40.04.030.

Washington court reports commission, member: RCW 2.32.160.

43.78.040 -- Requisitions

All printing and binding shall be done under the general superintendence of the authorities ordering it, and when completed shall be delivered to such authorities, who shall sign receipts therefor.

Before the public printer shall execute any printing or binding for any office, board, commission, or institution, the proper officer thereof shall apply therefor by requisition.

[1965 c 8 § 43.78.040. Prior: 1905 c 168 § 4; RRS § 10326.]

43.78.050 -- Itemized statement of charges

Upon delivering a printing or binding job and receiving a receipt therefor the public printer shall make out, and deliver to the requesting agency an itemized statement of charges.

[1965 c 8 § 43.78.050. Prior: 1905 c 168 § 5, part; RRS § 10327.]

43.78.070 -- Use of state plant — Conditions — Public printer's salary

The public printer shall use the state printing plant upon the following conditions, to wit:

(1) He or she shall do the public printing, and charge therefor the fees as provided by law. He or she may print the Washington Reports for the publishers thereof under a contract approved in writing by the governor.

(2) The gross income of the public printer shall be deposited in an account designated "state printing plant revolving fund" in depositories approved by the state treasurer, and shall be disbursed by the public printer by check and only as follows:

First, in payment of the actual cost of labor, material, supplies, replacements, repairs, water, light, heat, telephone, rent, and all other expenses necessary in the operation of the plant: PROVIDED, That no machinery shall be purchased except on written approval of the governor;

Second, in payment of the cost of reasonable insurance upon the printing plant, payable to the state and of all fidelity bonds required by law of the public printer;

Third, in payment to the public printer of a salary which shall be fixed by the governor in accordance with the provisions of RCW 43.03.040;

Fourth, in remitting the balance to the state treasurer for the general fund: PROVIDED, That a reasonable sum to be determined by the governor, the public printer, and the director of financial management shall be retained in the fund for working capital for the public printer.

[2009 c 549 § 5148; 1979 c 151 § 134; 1965 c 8 § 43.78.070. Prior: 1961 c 307 § 5; 1955 c 340 § 12; 1951 c 151 § 1; 1933 c 97 § 3; RRS § 10327-2.]

43.78.080 -- Printing specifications

All printing, ruling, binding, and other work done or supplies furnished by the state printing plant for the various state departments, commissions, institutions, boards, and officers shall be paid for on an actual cost basis as determined from a standard cost finding system to be maintained by the state printing plant. In no event shall the price charged the various state departments, commissions, institutions, boards, and officers exceed those established by the Porte Publishing Company's Franklin Printing Catalogue for similar and comparable work. All bills for printing, ruling, binding, and other work done or for supplies furnished by the state printing plant shall be certified and sworn to by the public printer.

The public printing shall be divided into the following classes:

FIRST CLASS. The bills, resolutions, and other matters that may be ordered by the legislature, or either branch thereof, in bill form, shall constitute the first class, and shall be printed in such form as the legislature shall provide.

SECOND CLASS. The second class shall consist of printing and binding of journals of the senate and house of representatives, and the annual and biennial reports of the several state officers, state commissions, boards, and institutions, with the exception of the reports of the attorney general and the governor's message to the legislature, which shall be printed and bound in the same style as heretofore. Said journals and reports shall be printed in such form as the senate and house of representatives and the various state officers, commissions, boards, and institutions shall respectively provide.

THIRD CLASS. The third class shall consist of all reports, communications, and all other documents that may be ordered printed in book form by the legislature or either branch thereof, and all reports, books, pamphlets, and other like matter printed in book form required by all state officers, boards, commissions, and institutions shall be printed in such form and style, and set in such size type, and printed on such grade of paper as may be desired by the state officer, board, commission, or institution ordering them, and which they think will best serve the purpose for which intended.

FOURTH CLASS. The fourth class shall consist of the session laws, and shall be printed and bound in such form as the statute law committee shall provide.

FIFTH CLASS. The fifth class shall consist of the printing of all stationery blanks, record books, and circulars, and all printing and binding required by the respective state officers, boards, commissions, and institutions not covered by classes one, two, three, and four.

[1972 ex.s. c 1 § 1; 1969 c 6 § 7; 1965 c 8 § 43.78.080. Prior: 1955 c 16 § 1; 1943 c 124 § 1; 1935 c 130 § 1; 1919 c 37 § 1; 1917 c 129 § 3; 1905 c 168 § 6; RRS § 10329.]

43.78.090 -- Reprinting

Whenever required by law or by the legislature or by any state officer, board, commission, or institution the public printer shall keep the type used in printing any matter forming a part of the first, second, third, and fourth classes standing for a period not exceeding sixty days for use in reprinting such matter.

[1965 c 8 § 43.78.090. Prior: 1935 c 130 § 2; 1919 c 37 § 2; 1907 c 174 § 1; RRS § 10330.]

43.78.100 -- Stock to be furnished

The public printer shall furnish all paper, stock, and binding materials required in all public work, and shall charge the same to the state, as it is actually used, at the actual price at which it was purchased plus five percent for waste, insurance, storage, and handling. This section does not apply to institutions of higher education.

[1993 c 379 § 106; 1965 c 8 § 43.78.100. Prior: 1917 c 129 § 5; 1905 c 168 § 9; RRS § 10333.]

Notes:

Intent -- Severability -- Effective date -- 1993 c 379: See notes following RCW 28B.10.029.

43.78.105 -- Printing for institutions of higher education — Interlocal agreements

The public printer may use the state printing plant for the purposes of printing or furnishing materials under RCW 43.78.100 if an interlocal agreement under chapter 39.34 RCW has been executed between an institution of higher education and the public printer.

[1993 c 379 § 105.]

Notes:

Intent -- Severability -- Effective date -- 1993 c 379: See notes following RCW 28B.10.029.

43.78.110 -- Securing printing from private sources — Definitions

(1) Whenever in the judgment of the public printer certain printing, ruling, binding, or supplies can be secured from private sources more economically than by doing the work or preparing the supplies in the state printing plant, the public printer may obtain such work or supplies from such private sources. The solicitation for the contract opportunity must be posted on the state's common vendor registration and bid notification system. The public printer shall develop procurement policies and procedures, such as unbundled contracting and subcontracting, that encourage and facilitate the purchase of such services or supplies from Washington small businesses to the maximum extent practicable and consistent with international trade agreement commitments.

(2) In event any work or supplies are secured on behalf of the state under this section the state printing plant shall be entitled to add up to five percent to the cost thereof to cover the handling of the orders which shall be added to the bills and charged to the respective authorities ordering the work or supplies. The five percent handling charge shall not apply to contracts with institutions of higher education.

(3) The definitions in this subsection apply throughout this section.

(a) "Common vendor registration and bid notification system" has the definition in RCW 39.29.006.

(b) "Small business" has the definition in RCW 39.29.006.

[2009 c 486 § 12; 1993 c 379 § 107; 1982 c 164 § 3; 1969 c 79 § 1; 1965 c 8 § 43.78.110. Prior: 1935 c 130 § 3; RRS § 10333-1.]

Notes:

Intent -- 2009 c 486: See note following RCW 39.29.006.

Conflict with federal requirements -- 2009 c 486: See note following RCW 28B.30.530.

Intent -- Severability -- Effective date -- 1993 c 379: See notes following RCW 28B.10.029.

43.78.130 -- Public printing for state agencies and municipal corporations — Exceptions to instate requirements

All printing, binding, and stationery work done for any state agency, county, city, town, port district, or school district in this state shall be done within the state, and all proposals, requests, or invitations to submit bids, prices, or contracts thereon, and all contracts for such work, shall so stipulate: PROVIDED, That whenever it is established that any such work cannot be executed within the state, or that the lowest charge for which it can be procured within the state, exceeds the charge usually and customarily made to private individuals and corporations for work of similar character and quality, or that all bids for the work or any part thereof are excessive and not reasonably competitive, the officers of any such public corporation may have the work done outside the state.

[1999 c 365 § 1; 1965 c 8 § 43.78.130. Prior: 1919 c 80 § 1; RRS § 10335.]

43.78.140 — Public printing for state agencies and municipal corporations — Allowance of claims

No bill or claim for any such work shall be allowed by any officer of a state agency or public corporation or be paid out of its funds, unless it appears that the work was executed within the state or that the execution thereof within the state could not have been procured, or procured at reasonable and competitive rates, and no action shall be maintained against such corporation or its officers upon any contract for such work unless it is alleged and proved that the work was done within the state or that the bids received therefor were unreasonable or not truly competitive.

[1999 c 365 § 2; 1965 c 8 § 43.78.140. Prior: 1919 c 80 § 2; RRS § 10336.]

43.78.150 -- Public printing for state agencies and municipal corporations — Contracts for out-of-state work

All contracts for such work to be done outside the state shall require that it be executed under conditions of employment which shall substantially conform to the laws of this state respecting hours of labor, the minimum wage scale, and the rules and regulations of the department of labor and industries regarding conditions of employment, hours of labor, and minimum wages, and shall be favorably comparable to the labor standards and practices of the lowest competent bidder within the state, and the violation of any such provision of any contract shall be ground for cancellation thereof.

[1994 c 164 § 12; 1973 1st ex.s. c 154 § 86; 1965 c 8 § 43.78.150. Prior: 1953 c 287 § 1; 1919 c 80 § 3; RRS § 10337.]

Notes:

Severability -- 1973 1st ex.s. c 154: See note following RCW 2.12.030.

43.78.160 — Public printing for state agencies and municipal corporations — Quality and workmanship requirements

Nothing in RCW 43.78.130, 43.78.140 and 43.78.150 shall be construed as requiring any public official to accept any such work of inferior quality or workmanship.

[1965 c 8 § 43.78.160. Prior: 1919 c 80 § 4; RRS § 10338.]

43.78.170 -- Recycled copy and printing paper requirement

The public printer shall use one hundred percent recycled copy and printing paper for all jobs printed on white copy and printing paper.

[2009 c 356 § 5; 1996 c 198 § 3; 1991 c 297 § 10.]

Notes:

Captions not law -- 1991 c 297: See RCW 43.19A.900.

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