

Memorandum

Date: September 7, 2005
To: Bob von Wolffrad, Director, Information Services
From: Mike Silverman
Subject: **Snohomish County Technology Benchmarking**

PTI is pleased to present our technology benchmarking findings to Snohomish County. This memo outlines the results of our work, based on the data provided by the County from May – July of 2005.

The remainder of this document contains:

- A. Summary
- B. Operating budget and staffing metrics
- C. Desktop services staffing and costs
- D. Server administration staffing and costs
- E. IT labor costs by IT functional area
- F. Distribution of IT effort and costs

A. SUMMARY

Based on this analysis, Snohomish County has no major areas of concern and falls within the range of benchmark data collected by PTI for similar governmental organizations¹. The County appears to have done particularly well at optimizing its email and file & print services infrastructure. Some opportunities for efficiency improvement may exist in the areas of desktop services and through further centralization of customer services and system services. Note that this study did not include an examination of the County's business application portfolio. Such a review is critical to assessing the true value of the County's information technology investments.

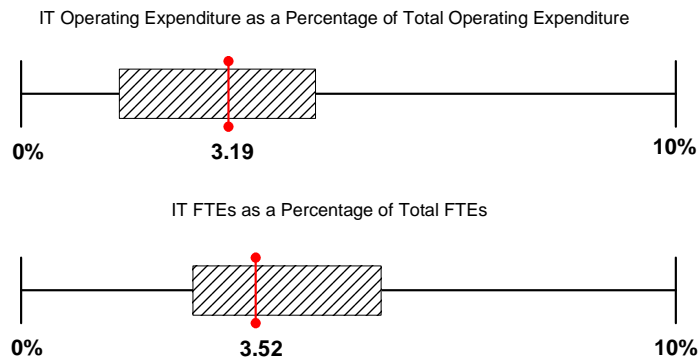
¹ Comparables included Washoe County, Nevada; Stanislaus, Monterey, and Placer Counties from California; and Clark County, Washington.

B. OPERATING BUDGET AND STAFFING METRICS

The following table provides operating budget and staffing metrics.²

County Population		633,947
Total County FY2005 Operating Expenditures	\$	426,955,105
Total County FY2005 FTEs		2,644
Total County FY2005 IT FTEs		93.10
Total County FY2005 IT Operating Expenditures	\$	13,608,380
IT Operating Expenditures as a Percentage of Total Operating Expenditures		3.19%
IT FTEs as a Percentage of Total FTEs		3.52%
Total County Operating Expenditures per FTE	\$	161,480.75
IT Operating Expenditures per FTE	\$	5,146.89
Total County Operating Expenditures per Citizen	\$	673.49
IT Operating Expenditures per Citizen	\$	21.47

PTI recently completed a survey of counties similar in size to Snohomish County. Within this group, IT operating expenditures as a percentage of total operating expenditures ranged from 1.6% to 4.5%. For the same organizations, IT FTEs comprised 2.7% to 5.5% of the work force.



Snohomish County’s IT staffing and spending fall toward the middle of these ranges. Note that we often find organizations placed toward the bottom end of these ranges to be under-invested in IT. Organizations at or above the top of these ranges typically exhibit one or more of the following characteristics:

- ◆ They have invested in a “Tier 1” ERP package (i.e., PeopleSoft, SAP, or Oracle) – we notice that these packages frequently drive IT costs toward the upper end of the range
- ◆ They have obvious inefficiencies in their approach to managing and supporting information technology – room for cost savings exists
- ◆ They have made conscious decisions to invest heavily in IT, typically with the intention of providing operational efficiencies or improving service to citizens, businesses, and other stakeholders

² Total County FY 2005 operating expenditures were calculated from the 2005 Snohomish County Adopted Budget taking the “Resources required to fund expenditures” less interfund transactions and subtracting capital outlays and debt service.

C. DESKTOP SERVICES STAFFING AND COSTS

The following table presents desktop services² staffing and cost metrics.

Total County Workstations	Total Desktop Services FTEs	Ratio of Workstations to FTEs	Total Desktop Services Labor Cost	Annual Labor Cost per Workstation
2,850	17.76	160	\$ 1,088,399	\$ 381.89

With a workstation-to-workstation support effort ratio of 160:1, the County appears to be more efficient than most organizations we have seen, as our median is 137:1. In environments where the workstation environment is relatively standardized and where effective remote access tools are in place, we have seen this ratio in the range of 225:1 without service degradation.

D. SERVER ADMINISTRATION STAFFING AND COSTS

The following table presents server administration³ staffing and cost metrics.

Server Type	Total Number of Servers	Total Server Admin FTEs	Ratio of Servers to FTEs	Total Server Admin Labor Cost	Annual Labor Cost per Server
Email/Calendaring	5	2.45	2	\$ 151,061	\$ 30,212
File & Print	11	2.45	4	\$ 149,661	\$ 13,606
Application	109	1.65	66	\$ 103,536	\$ 950
Other	80	2.03	39	\$ 126,845	\$ 1,586
TOTAL / Average*	205	8.58	28	\$ 531,103	\$ 11,588

With an overall server-to-server support effort ratio of 28:1, the County is around the median of what we have seen in other organizations (27:1). We also observe the following regarding the County's servers:

- ◆ With totals of 5 email/calendaring and 11 file & print servers, the County has done an excellent job of optimizing these aspects of its architecture
A ratio of 70 application servers per administration FTE indicates that this area may be significantly understaffed, as a more typical ratio would have 30-35 servers for each administrator

² "Desktop services" includes the effort associated with Tier 1 (first call) help desk support, Tier 2 desk-side workstation and personal productivity software support, and workstation administration. Note that labor costs are *unburdened*.

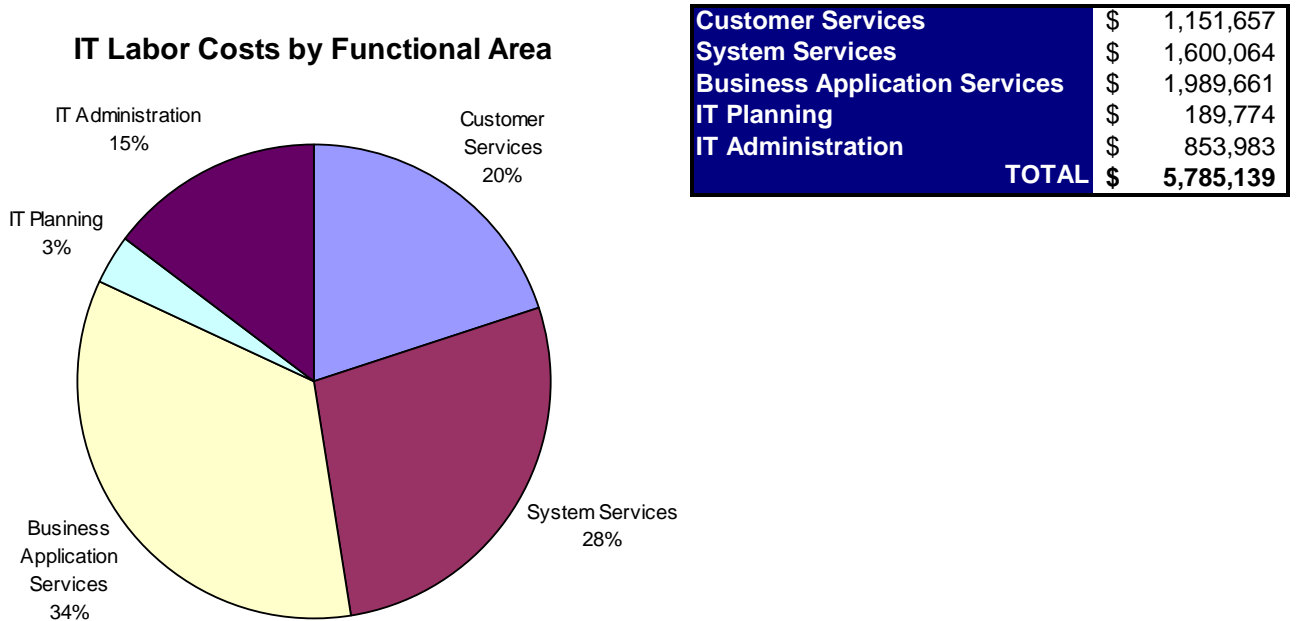
³ "Server administration" pertains to the activities related to implementing and maintaining servers. These activities also include administration, account management, and operation of file, print, and application servers and other logical network devices; performance management; tuning; applying operating system patches and upgrades; and administering configuration data.

E. IT LABOR COSTS BY IT FUNCTIONAL AREA

To support our analysis of the County’s IT labor effort, we summarized the labor data into five major categories, or IT functional areas:

- ◆ **Customer Services** – labor related to directly supporting users of IT systems and services
- ◆ **System Services** – labor related to implementing, maintaining, and supporting the organization’s computers, systems software, and network connectivity
- ◆ **Business Application Services** – labor related to providing, maintaining, and supporting the use of software needed to meet the operational, management, and reporting requirements of the organization
- ◆ **IT Planning** – labor related to planning for the technology function at the organization
- ◆ **IT Administration** – labor related to the management of day-to-day IT operations

The following pie chart illustrates the distribution of County IT labor costs, using these categories. Note that costs are unburdened.



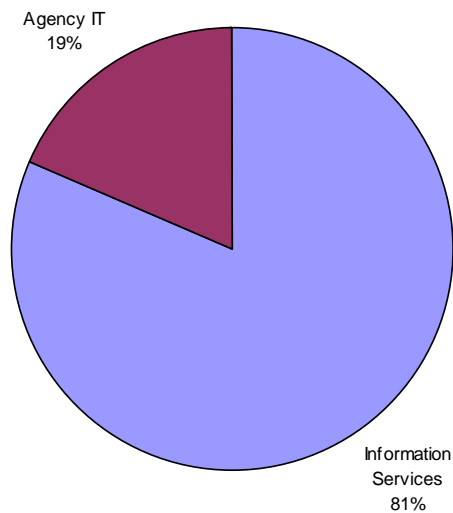
Customer Services and *Business Application Services* represent the two labor areas that provide direct support to end users. Together, these activities account for 54% of the County’s labor effort. Organizations often try to maximize the labor spent in these areas, as it offers the clearest and most direct business benefit.

F. DISTRIBUTION OF IT LABOR EFFORT AND COSTS

To provide insight into the current level of IT support centralization at the County, we analyzed the allocation of IT labor effort using Pacific Technologies’ standard functional areas (Customer Services, System Services, Business Application Services, IT Planning, and IT Administration).

The pie chart below presents a summary of IT spending by the Information Services Department (ISD) compared to the 19 other agencies (Agency IT) analyzed. As the chart indicates, **approximately one-fifth of the County’s total IT costs is represented by agencies other than ISD.**⁴

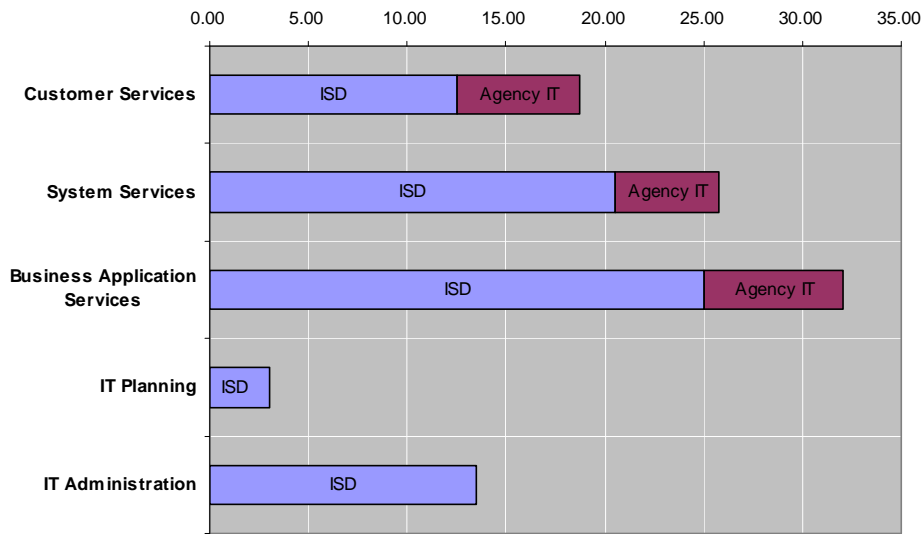
Information Services IT Costs vs. Distributed IT Unit Labor Costs



⁴ ISD staff total is 104.5 positions, however only 74.5 are involved in activities included in this study. The functions not included were GIS Services, Records Management, and Imaging/Scanning Services. The effect of this is an underestimate of the size of Central IT staff by 30 FTE. This report is based on the 74.5 number.

The chart below summarizes ISD and other agency labor effort for the IT functions they provide. **We find the County to be more centralized than most in its delivery of IT services**, although we would note that additional centralization within customer services and system services might offer opportunities for additional labor efficiency. Given the current emphasis on cost efficiency in government, Snohomish County is ahead of the ongoing trend toward centralization of IT infrastructure assets (i.e., workstations, servers, etc.) and related support labor.

Information Services and Other Agency Labor Effort by IT Function



The table below summarizes ISD and other agency labor costs by IT function.

Information Services and Other Agency Labor Cost by IT Function

	Information Services	Agency IT	TOTAL
Customer Services	\$ 790,725	\$ 360,932	\$ 1,151,657
System Services	\$ 1,296,789	\$ 303,275	\$ 1,600,064
Business Application Services	\$ 1,581,450	\$ 408,211	\$ 1,989,661
IT Planning	\$ 189,774	\$ -	\$ 189,774
IT Administration	\$ 853,983	\$ -	\$ 853,983
TOTAL	\$ 4,712,721	\$ 1,072,418	\$ 5,785,139

Please call me at (425) 881-3991 if you have any questions.

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