



SPAN OF CONTROL:
Although numbers are reported,
bureaus lack organizational structure goals

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CITY OF PORTLAND

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August 17, 2011

TO: Mayor Sam Adams
Commissioner Nick Fish
Commissioner Amanda Fritz
Commissioner Randy Leonard
Commissioner Dan Saltzman
Jack Graham, Chief Administrative Officer

SUBJECT: Audit Report: *Span of Control: Although numbers are reported, bureaus lack organizational structure goals* (#397)

The attached report contains the results of our audit of the City's span of control. We found that although City Bureaus consistently report span of control in their requested budgets, it is not clear how Council uses the information. We also found the City has not implemented the recommendations from an earlier study, and has not established organizational structure goals and span of control targets. We make several recommendations for the City to establish and review span of control targets, as well as to revisit and implement the recommendations from the prior study.

Mayor Sam Adams and Chief Administrative Officer Jack Graham submitted written responses to this audit. Their responses are included at the back of this report.

We ask the Office of Management and Finance to provide us with a status report in one year, through the office of its Commissioner, detailing steps taken to address our recommendations in this report.

We very much appreciate the cooperation and assistance we received from personnel in Office of Management and Finance as we conducted this audit.

LaVonne Griffin-Valade
City Auditor

Audit Team: Drummond Kahn
Alexandra Fercak
Fiona Earle

Attachment

SPAN OF CONTROL:

Although numbers are reported,
bureaus lack organizational structure goals

Summary

“Span of control” is defined as the number of subordinates in an organization who report directly to one supervisor. Span of control is one measure of organizational and management effectiveness. However, calculating and reporting span of control can vary. Span of control best practices provide guidelines on which organizational factors to consider when determining an ideal span of control. These factors include job complexity and similarity, geographic proximity of employees, the amount of coordination required to complete tasks, employee abilities and empowerment, and the ability and skill level of management.

The objective of this audit was to document the City’s span of control data, to determine whether bureaus are managing span of control in accordance with established goals and standards, and to identify span of control best practices. The scope of this audit includes reviewing City bureaus’ reporting and calculation of current span of control, how management uses this information, and to determine whether the City implemented the recommendations from a 1994 study on span of control. Our scope did not include calculating city-wide or bureau-specific span of control.

We found that:

- The City made progress and now reports span of control data for each bureau.
- The City has still not implemented the general recommendations from the 1994 study, even though these recommendations remain useful to the City.
- The City bureaus lack organizational structure goals.

Overall, the 1994 recommendations and clear goals would help improve City organizational structure and management. We make several recommendations for the City to establish and review span of control targets, as well as to revisit and implement the long-standing recommendations from the prior study. Together, these actions will help to ensure the City's organizational structure supports high performance and the achievement of the City's objectives.

**What is
Span of Control?**

An organization's structure determines how roles and responsibilities are delegated, coordinated and controlled, and how information flows between management levels. In a centralized structure, decision making is more concentrated, and closer control is exercised over departments. In a decentralized structure, the decision making is more distributed.

The structure of an organization should be a means to high performance and should support the organization's objective. Span of control is a tool used to determine how relationships and reporting structures are established in an organization, and whether the structure is centralized or decentralized. Span of control directly affects the organization's communication, employee motivation, employee growth, reporting relationships, labor costs, and administrative overhead cost.

Span of control is defined as the number of subordinates reporting directly to one manager or supervisor. For example, a span of control of 5 indicates that 5 employees report to one manager. It can also be reported as a ratio, dividing the organization's total number of non-managers by the total number of managers and supervisors. For example, a department that has three managers and three subordinates has a ratio of 1:1. When calculating span of control it is important to define managers and supervisors, to determine whether temporary employees are included, and whether full-time equivalent (FTE) or the number of employees are counted.

Span of control is referred to as being narrow or wide. A narrow span of control indicates that one manager directly supervises few subordinates. Organizations with a narrow span of control also tend to have a larger number of hierarchy levels. Since there are more managers in a narrow span of control, this structure also tends to be costly and communication between the levels of hierarchy and management are less effective. A narrow span of control is suitable for organizations whose employees are located in various geographical locations. A wide span of control is found in organizations where one manager directly supervises many employees. The organization tends to have few levels of hierarchy and fewer managers. Having fewer managers in an organization tends to increase cost efficiency, improve communication, and speed up the decision-making process. See Figure 1 for a comparison of narrow and wide span of control.

Early organizational management literature and guidelines focused on determining the optimal span of control number that would apply to all organizations. Span of control guidelines and best practices indicate that a flatter organization is more efficient and productive and has better communication between management levels. However, over time span of control guidelines have evolved to stress that it is best for each organization to determine its ideal span of control. Span of control is dependent on many factors, which an organization needs to consider when determining the ideal span of control. Factors to consider for determining appropriate span of control are listed in Figure 1.

Figure 1 Factors to help determine appropriate spans of control

← Narrow Spans		Wide Spans →	
Complex	Nature of the work	Not complex	
Different	Similarity of activities performed	Similar	
Not clear	Clarity of organizational objectives	Clear	
Fuzzy	Degree of task certainty	Definite rules	
High	Degree of risk in the work for the organization	Low	
High	Degree of public scrutiny	Low	
Weak	Supervisor's qualifications and experience	Strong	
Heavy	Burden of non-supervisory duties	Light	
High	Degree of coordination required	Low	
None	Availability of staff assistance	Abundant	
Weak	Qualifications and experience of subordinates	Strong	
Dispersed	Geographic location of subordinates	Together	
← More Supervisors		Fewer Supervisors →	

Source: 1994 City of Portland Span of Control study

For additional information on the theory of span of control, refer to the City of Portland 1994 Span of Control study at: <http://bit.ly/10u4DGh>.

Audit Results

Although City Bureaus consistently report span of control in their requested budgets, it is not clear how Council uses the information. We found the City has not implemented the recommendations from an earlier study, and has not established organizational structure goals and span of control targets. Not having these goals makes it difficult to evaluate each bureau's span of control and how it supports the City's objectives.

City made progress and now reports span of control data for each bureau

Since FY 2009/10, the Office of Management and Finance (OMF) directs each bureau to calculate and report span of control during the annual budget process. Initially, due to lack of specific span of control guidelines provided by the OMF, bureaus' reporting of span of control was not consistent, and bureaus used different definitions of span of control. However, OMF revised the span of control guidelines for FY 2011/12 to provide specific definition on how to report span of control in the budget documents. The guidelines for FY 2011/12, state that management span of control "should be reflected as 1 manager per how many employees (exclude the manager from the total number of employees)." For FY 2011/12 the revised guidelines resulted in consistent span of control reporting across the bureaus.

Figure 2 Span of control in various City bureaus

City of Portland Bureau	Management Span of Control (FY 2011/12 Requested Budget)
City Attorney	1 to 6
City Auditor	1 to 7.7
Environmental Services	1 to 6.6
Cable Comm. & Franchise	1 to 1
Development Services	1 to 23.5
Emergency Communications	1 to 8.5
Emergency Management	1 to 3.52
Fire & Rescue	1 to 5
Fire & Police Disability & Retirement Fund	1 to 4
Government Relations	1 to 8
Human Relations	1 to 4
Housing	1 to 5.0
Neighborhood Involvement	1 to 5.9
Management & Finance	1 to 3.52 *
Parks & Recreation	1 to 29.9
Portland Development Commission	1 to 4.3 (projected)
Planning & Sustainability	1 to 6
Police	1 to 5
Transportation	1 to 8.3
Water	1 to 6.1

Source: City of Portland FY 2011/12 Requested Budget

* This number represents an average for all Office of Management & Finance bureaus and divisions

City did not implement 1994 span of control recommendations

The last span of control study at the City of Portland was completed in 1994. At the request of City Council, the City of Portland Auditor’s Office hired a consultant to complete a span of control study. The primary study objective was to identify opportunities to increase span of control ratios for managers and supervisors or to reduce the number of management layers in City organization. The study found that the City has narrower spans and more layers than literature recommends. In addition, the study found the City’s ratios of non-managers to managers compares more favorably to other public organizations than to private organizations.

In January 1997, we conducted a review to determine whether the City implemented the 1994 span of control study recommendations, and we determined that none of the four general recommendations were implemented. The Appendix provides a detailed list of the 1994 recommendations.

During this audit, we found that as of January 2011, the City has still not implemented the general recommendations from the 1994 span of control study. Figure 3 summarizes the status of the recommendations. Based on our review of current span of control best practices and guidelines, we conclude that the 1994 span of control recommendations are still applicable and useful to the bureaus' and City's organizational structure.

Figure 3 Synopsis of Recommendations from City of Portland Span of Control Study, June 1994

Recommendations	1/1997 Follow-up	1/2011 Follow-up
City Council should provide leadership on organizational restructuring	Not implemented	Not implemented
The Office of Management and Finance (OMF)* should help transform broad organization structure policy into reality.	Not implemented	Not implemented
Offices and bureaus should plan and implement specific changes to streamline their organizations.	Not implemented	Not implemented
The same guidelines applied for budgeting may be applied for auditing.	In process	In process

Source: City of Portland FY 2011/12 Requested Budget

* In 1994 the Office of Management and Finance (OMF) was called the Office of Finance and Administration (OFA)

City lacks organizational structure goals

City bureaus provide a variety of services, and each bureau has different factors that determine the bureau's ideal span of control. For example, the Portland Police Bureau has very different span of control needs than the Water Bureau or the Bureau of Parks and Recreation. Parks and Recreation also has significant seasonal fluctuations in its number of employees, which leads to different span of control needs over the year. Some bureaus, such as the Portland Fire Bureau, also have national or state span of control standards they are required to follow. Other bureaus, such as the Office of Cable Communications and Franchise Management, have very few employees and span of control does not play a major role in their management.

Since FY2009-10, each City bureau calculates their span of control and reports the number in their requested budget to the Council. According to the Office of Management and Finance, the Mayor's Office requested to have span of control reported as one measure during the budget process. According to the Mayor's Office, span of control is an important measure especially in difficult budget times. However, since most bureaus have not established a span of control target number, it is not clear how Council uses the span of control numbers reported in the bureaus' requested budgets.

We found that many bureaus do not consistently use the span of control number as a management tool in order to evaluate the bureaus' organization structure. Some bureau staff we interviewed stated they report span of control during the budget process but they do not actually use it for management decisions. Other bureau staff stated they use span of control to determine whether their staffing levels are appropriate. However, when asked how they determine whether their span of control is effective, most did not have a span of control target number to evaluate their organizational structure.

Without a span of control target number, it is difficult to evaluate a bureau's organizational structure. Since bureaus vary widely in the services they provide, it is not feasible to compare span of control across bureaus. As best practices point out, an organization should determine an ideal span of control number in order to assess its actual span of control.

Without bureau-specific organizational goals, it becomes difficult for Council and bureau management to determine whether their current organizational structure is acceptable and whether it supports the bureaus' and City's objectives.

Recommendations

In order to ensure the City's organizational structure supports high performance and the achievement of the City's objectives, the City Council should direct the Office of Management and Finance to:

1. Ensure the City reviews and where appropriate implements the 1994 span of control study recommendations.
2. Direct the bureaus to establish organizational structure goals specific to each bureau's operations. Bureaus' goals should support the bureaus' and City's objectives.
3. Continue to work with bureaus on developing consistent reporting and on using the span of control information during the budget process. Direct the bureaus to report their span of control targets along with the actual average span of control in their annual budget requests.

Objective, scope and methodology

The objective of this audit was to identify span of control best practices, to document the City's span of control numbers as reported by the bureaus, and to determine whether bureaus are managing span of control in accordance with established goals and span of control standards. The scope of this audit includes a review of City bureaus' reporting and calculation of current span of control, how management uses this information, and to determine whether the City implemented the recommendations from a 1994 study on span of control. Our scope did not include calculating Citywide or bureau specific span of control. This audit was included in the Audit Services annual audit schedule.

To determine current guidelines and best practices regarding span of control, we reviewed literature on span of control. We reviewed span of control studies and audits completed by other cities, counties and private organizations. We also reviewed articles and studies in academic journals and business and management publications. We interviewed city management regarding span of control best practices.

We reviewed the 1994 City of Portland Span of Control study and its recommendations. We also reviewed the follow-up on those recommendations conducted by the Audit Services Division in January 1997. We interviewed City staff to determine whether recommendations have been implemented.

In order to learn about the City's use of span of control, we contacted staff from the Office of Management and Finance, including the Human Resources Bureau, and the Mayor's Office. We also interviewed staff from selected bureaus in order to find out how bureaus calculate and use span of control. We reviewed bureau budgets for FY 2009-10, FY 2010-11 and FY 2011-12 in order to determine how the City reports span of control numbers.

Answering the audit objective required that we follow-up on a recommendation directed to the City Auditor. The Audit Services Division is a part of the City Auditor's office. Without organizational independence, our assessment of the role of the City Auditor may

not be considered objective. We do not believe that our lack of organizational independence from the City Auditor affects our ability to successfully follow-up on a recommendation directed to the City Auditor.

With the potential exception of the organizational independence requirement described, we conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. These 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. We believe that the evidence obtained provides reasonable basis for our findings and conclusions based on our audit objectives.

APPENDIX

Recommendations from City of Portland Span of Control Study, June 1994

Recommendations from 1994	1/1997 Follow-up	1/2011 Follow-up
City Council should provide leadership on organizational restructuring		
City Council should determine whether the current number of layers of management and the average spans of control identified in the study are acceptable.	Not implemented	Not implemented
If the Council determines that delayering and span expansion would promote the City's service efficiency and effectiveness goals (as suggested by the contemporary management literature), then the Council should set organization structure goals.	Not implemented	Not implemented
The Council should also take a position on the importance of employee involvement and self-directed teams.	Not implemented	Not implemented
The Council should designate a cross bureau team to work on the implementation process.	Not implemented	Not implemented
The Office of Finance and Administration (OFA) should help transform broad organization structure policy into reality.		
The OFA* should lead the cross-bureau team to establish organization structure guidelines consistent with City goals.	Not implemented	Not implemented
The guidelines should recognize situational differences that could cause structures to vary.	Not implemented	Not implemented

(Continued on next page)

Recommendations from 1994	1/1997 Follow-up	1/2011 Follow-up
The OFA* should review the structure of each bureau based on the guidelines as part of budget reviews scheduled to occur over the next two years.	Not implemented	Not implemented
OFA* should lead the cross-bureau teams to develop a proposal for how compensation will be determined for managers or supervisors who are reassigned because of restructuring.	Not implemented	Not implemented
Offices and bureaus should plan and implement specific changes to streamline their organizations.		
Each office and bureau should develop a plan to address the City's organization structure goals and guidelines.	Not implemented	Not implemented
The offices and bureaus should present their plans during the budget reviews scheduled for the next two years.	Not implemented	Not implemented
If deemed important in City policy, the plans of each office or bureau should specifically include training to support employee involvement and self-directed work teams.	Not implemented	Not implemented
The offices and bureaus should full implement changes to conform to the guidelines by July 1, 1996, at the latest.	Not implemented	Not implemented
The same guidelines applied for budgeting may be applied for auditing.		
The City Auditor should adopt and apply standards for organization structure. Where the organization structure is relevant to the scope of a particular audit, the Auditor should report findings based on the standards.	In process	In process

* In 1994 the Office of Management and Finance (OMF) was called the Office of Finance and Administration (OFA)

RESPONSES TO THE REPORT



OFFICE OF MAYOR SAM ADAMS
CITY OF PORTLAND

August 8, 2011

LaVonne Griffin-Valade
City Auditor
1201 SW Fourth Avenue, Room 140
Portland, OR 97204

Dear Auditor Griffin-Valade,

Thank you for your audit of the City's reporting and monitoring of bureau span of control.

I agree that span of control is an important factor for the City Council to look at when making decisions about bureau operations and budgets. That is why, upon taking office in 2009, I directed OMF to add span of control reporting to the bureau baseline templates that were being implemented as part of the FY 2009-10 budget process.

The City has cut expenditures over the last three years in order to balance our budget and position ourselves to emerge from the recession as a strong, vibrant city. I have worked with OMF and the bureaus to focus those cuts as much as possible on administrative costs, while maintaining front-line programs and services. A renewed focus on span of control – ensuring that bureaus have the appropriate balance between management and front-line staff – will further that effort.

I will continue to work with OMF and the entire City Council to look again at the 1994 span of control audit recommendations, and implement those that are relevant and appropriate to our current workforce.

Once again, thank you for your work to help ensure that the City's workforce reflects existing best practice so that we are well positioned for the future.


Sam Adams
Mayor
City of Portland



CITY OF PORTLAND

OFFICE OF MANAGEMENT AND FINANCE

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MEMORANDUM

To: LaVonne Griffin-Valade, City Auditor

From: Jack D. Graham, Chief Administrative Officer *JDG*

Date: August 10, 2011

Subject: Response to Span of Control Audit

Thank you for the opportunity to review and comment on your audit entitled *Span of Control* (the "Audit"): We appreciate the latest audit on this important issue and the opportunity it gives City Council and all City bureaus to take a fresh look at the appropriate size and organization of their workforce.

OMF believes that span of control is one of many important components in the overall organizational structure of the City. When this issue was first looked at in 1994, the City was facing the implementation of voter-imposed property tax limitations (Measure 5). It was necessary at that time to do a top-to-bottom review of all City bureaus and look for ways to operate more efficiently. Similarly, we are just now emerging from a deep and unprecedented recession. While bureaus have made significant cuts to their organizations and programs, it is still prudent to take another look at span of control throughout the City to determine if efficiencies can be found.

At the Mayor's direction, OMF began requiring bureaus to track and report span of control in the FY 2009-10 budget process. Although initial reporting was inconsistent across bureaus, in the development of the FY 2011-12 budget we provided a specific definition for reporting prior year span of control data, which has improved consistency. We appreciate that the Audit notes this improvement, and will continue to work with bureaus on refining the reporting process.

OMF agrees with the Audit's suggestion to review and implement, where appropriate, span of control recommendations from the original 1994 study. If Council establishes organizational structure goals specific to each bureau's operations, OMF will direct bureaus to report their span of control targets along with their actual span of control during the budget process.

OMF appreciates the Audit's focus on establishing specific bureau span of control targets. Since bureaus vary widely in the services they provide, they will also vary widely in their ideal span of control. We look forward to working with the City Council and City bureaus to review current organizational structures and look for ways to enhance City operations.

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Report #397, August 2011

Audit Team Members: Alexandra Fercak
Fiona Earle

This report is intended to promote the best possible management of public resources. This and other audit reports produced by the Audit Services Division are available for viewing on the web at: www.portlandonline.com/auditor/auditservices. Printed copies can be obtained by contacting the Audit Services Division.

LaVonne Griffin-Valade, City Auditor
Drummond Kahn, Director of Audit Services

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