

## **Calculating Span of Control in Multnomah County**

Updated August 1, 2011

### **Introduction**

This briefing paper will provide guidance for managers who are compiling span of control data for their review meeting with the Chief Operating Officer as part of the Multnomah Evolves initiatives. It represents a synthesis of what we believe is best practice as described in the literature and includes updated instructions for calculating span of control.

### **Organizational Factors Influencing Span of Control**

A recent study conducted by Miami-Dade County titled “Span of Control Analysis” (September 10, 2010) provided a comprehensive listing of factors to consider when determining optimal span of control. The list below represents information from this report plus a few additional factors for consideration:

- Similarity of work activities / degree of task certainty performed by supervised staff
- Complexity of work
- Degree of risk entailed in work
- Number of performance measures needed to evaluate subordinates
- The extent to which coordination and interdependence is important between employees and groups
- Significant and/or frequent change in the work environment
- Extent of non-supervisory activities / large administrative burden
- Qualifications / experience / training of supervisor and staff
- Degree of public scrutiny entailed in work
- Geographic dispersion of staff
- Information technology infrastructure
- Extent of contracting out
- Staff turnover
- Special circumstances including:
  - Multiple work shifts / 24 hour operations
  - Legal / regulatory issues
  - High level of professional expertise required

## Calculating Span of Control

To calculate Span of Control, follow the methodology illustrated below (use attached organizational chart as an example). You should count all direct reports (employees) to a supervisor. In general, you should count people, not FTE's – in other words, two half time (.50 FTE) employees still count as 2 employees, not 1.

If temporary or on-call employees are consistently used as part of the business, they should be counted but in this case the FTE should be pro-rated. For example, if a manager is responsible for a pool of 15 on-call employees who work a total of 3 FTE over a year's time, for calculation purposes 3 direct reports should be used. Due to the unique nature of Election Workers they will not be included in the span of control calculation.

Set up a table with two columns. Using current organizational charts start with the highest level position in the organizational component and count the number of direct reports for that Manager. In this example, we are looking at a Division. The span of control for the Division Director is 1 to 3 (**1:3**). Record a "1" in the first column and a "3" in the second column. We record the number one for each position so that we can easily calculate the total number of managers in the cohort.

|                          | Managers | Direct Reports |
|--------------------------|----------|----------------|
| <b>Division Director</b> | <b>1</b> | <b>3</b>       |
|                          |          |                |
|                          |          |                |

Move to the next level. In this example, Senior Manager A has 4 direct reports, Supervisor A, Supervisor B, Supervisor C, and Supervisor D. Record a "1" in the first column and a "4" in the second column.

|                      | Managers | Direct Reports |
|----------------------|----------|----------------|
| Division Director    | 1        | 3              |
| <b>Sr. Manager A</b> | <b>1</b> | <b>4</b>       |
|                      |          |                |
|                      |          |                |

Senior Manager B has 5 direct reports. Add Senior Manager B to your table:

|                      | <b>Managers</b> | <b>Direct Reports</b> |
|----------------------|-----------------|-----------------------|
| Division Director    | 1               | 3                     |
| Sr. Manager A        | 1               | 4                     |
| <b>Sr. Manager B</b> | <b>1</b>        | <b>5</b>              |

Senior Manager C has 3 direct reports. Add Senior Manager C to your table:

|                      | <b>Managers</b> | <b>Direct Reports</b> |
|----------------------|-----------------|-----------------------|
| Division Director    | 1               | 3                     |
| Sr. Manager A        | 1               | 4                     |
| Sr. Manager B        | 1               | 5                     |
| <b>Sr. Manager C</b> | <b>1</b>        | <b>3</b>              |

Now let's look at the next level below the Senior Managers. Senior Manager A's four direct reports are Supervisor A1, A2, A3 and A4. Each of these supervisors has 6 direct reports, giving them each a span of control of 1:6. Add them to your table:

|                      | <b>Managers</b> | <b>Direct Reports</b> |
|----------------------|-----------------|-----------------------|
| Division Director    | 1               | 3                     |
| Senior Manager A     | 1               | 4                     |
| <b>Supervisor A1</b> | <b>1</b>        | <b>6</b>              |
| <b>Supervisor A2</b> | <b>1</b>        | <b>6</b>              |
| <b>Supervisor A3</b> | <b>1</b>        | <b>6</b>              |
| <b>Supervisor A4</b> | <b>1</b>        | <b>6</b>              |
| Senior Manager B     | 1               | 5                     |
| Senior Manager C     | 1               | 3                     |

Senior Manager B's 5 direct reports each supervisor 6 people. Add them to your table:

|                      | <b>Managers</b> | <b>Direct Reports</b> |
|----------------------|-----------------|-----------------------|
| Division Director    | 1               | 3                     |
| Senior Manager A     | 1               | 4                     |
| Supervisor A1        | 1               | 6                     |
| Supervisor A2        | 1               | 6                     |
| Supervisor A3        | 1               | 6                     |
| Supervisor A4        | 1               | 6                     |
| Senior Manager B     | 1               | 5                     |
| <b>Supervisor B1</b> | <b>1</b>        | <b>6</b>              |

|                      |          |          |
|----------------------|----------|----------|
| <b>Supervisor B2</b> | <b>1</b> | <b>6</b> |
| <b>Supervisor B3</b> | <b>1</b> | <b>6</b> |
| <b>Supervisor B4</b> | <b>1</b> | <b>6</b> |
| <b>Supervisor B5</b> | <b>1</b> | <b>6</b> |

Finally, Senior Manager C's three direct reports (Supervisors C1, C2 and C3) each supervise 10, 5, and 7 people respectively. Add them to your table and total both columns:

|                      | <b>Managers</b> | <b>Direct Reports</b> |
|----------------------|-----------------|-----------------------|
| Division Director    | 1               | 3                     |
| Senior Manager A     | 1               | 4                     |
| Supervisor A1        | 1               | 6                     |
| Supervisor A2        | 1               | 6                     |
| Supervisor A3        | 1               | 6                     |
| Supervisor A4        | 1               | 6                     |
| Senior Manager B     | 1               | 5                     |
| Supervisor B1        | 1               | 6                     |
| Supervisor B2        | 1               | 6                     |
| Supervisor B3        | 1               | 6                     |
| Supervisor B4        | 1               | 6                     |
| Supervisor B5        | 1               | 6                     |
| Senior Manager C     | 1               | 3                     |
| <b>Supervisor C1</b> | <b>1</b>        | <b>10</b>             |
| <b>Supervisor C2</b> | <b>1</b>        | <b>5</b>              |
| <b>Supervisor C3</b> | <b>1</b>        | <b>7</b>              |
| <b>TOTAL</b>         | <b>16</b>       | <b>91</b>             |

Divide the total number of Direct Reports by the total number of Managers to get the average span of control for this Division.

$$91 \div 16 = 5.7$$

**Span of Control is 1:5.7**

# SPAN OF CONTROL

