

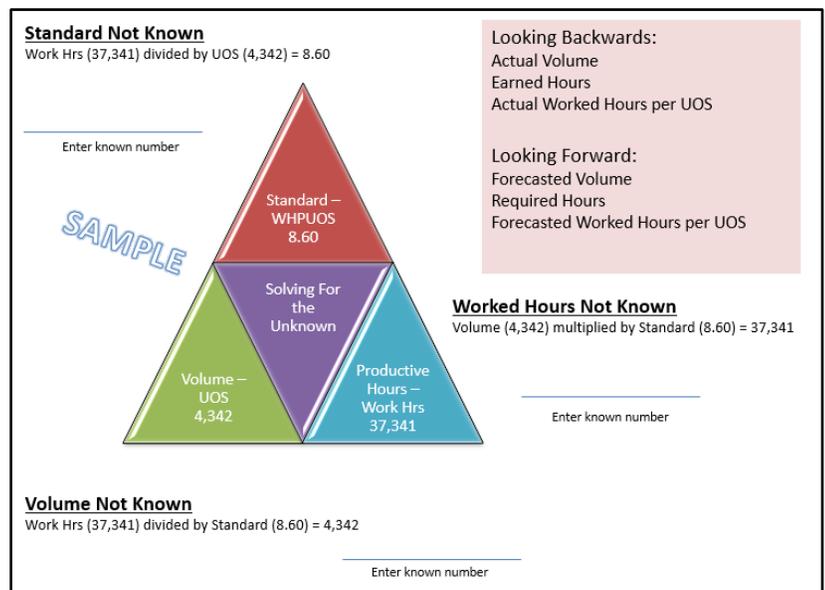
What the WHPUOS? How Adopting Worked Hours Per Unit Of Service to Analyze Productivity Can Help Manage Labor Costs

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WHPUOS is an acronym for **Worked Hours Per Unit Of Service** —an operational efficiency statistic that expresses the relationship between worked hours and service volumes logged during a defined period of time (e.g., shift, day, per period)—and are always stated in hours or percentage of an hour. For example, a WHPUOS of 0.25 represents 25 percent of an hour. WHPUOS are not rates per hour, nor should they be confused with Workload Indicators or RVUs (relative value units). WHPUOS are a measure of labor intensity or staffing resources required per unit of service delivered. As such WHPUOS provides management with critical insight into staffing patterns, costs and variances.

A bit of history: in 1989, on a bi-weekly mainframe productivity report, the heading [whpuos] came rolling out of a dot matrix printer. The acronym was picked up and used on shift manager forms being installed by healthcare consulting firm West Hudson Inc. This may be the origin of the acronym WHPUOS, informally pronounced “*whoo-pose*.”

The WHPUOS statistic is a classic mathematical triangle. If you know two of the three points, you can solve for the third. The three components are worked hours, unit of service/volume, and the WHPUOS. If you are documenting past performance you are presenting earned worked hours, actual volume or the actual WHPUOS. If you are describing a projected future state, it's required worked hours to meet the target WHPUOS, the necessary volume to justify the schedule staff or what would the projected WHPUOS be. This simple diagram helps in doing the math.



Looking Backwards – Calculating Performance Variances

To calculate performance variances, a performance target must be established. The performance target can be stated as a WHPUOS target for a specific department or cost center. Actual worked hours are divided by the unit of service volume, resulting in a WHPUOS. The variance between the target and actual is then calculated, and the actual is subtracted from the target. A positive result represents using less worked hours than the target allows, while a negative number represents using more hours than the target. To convert this variance into hours, multiply the volume times the unit of service variance. This provides the variance in worked hours. If you know the department’s average wage rate, you can also demonstrate the variance in dollars. Presenting the variance in financial terms typically has the greatest impact.

Running Totals – Bi-Weekly Rollups

Presenting performance variances, calculated from WHPUOS, in a bi-weekly rollup report is part of a performance dashboard called the Shift Management Tool (SMT). This daily line-management tool is like a checkbook ledger. The first day's hours, volume and performance results are entered into the dashboard. The second day's results are entered and added to the first, yielding the running results or period-to-date balance. If the running total in this SMT is running over you target it will be lighted red, or if under, green. The goal is to end "Green" by the end of the performance period. As you move through the reporting period, recalibration opportunities present themselves, leading to proactive management.

Forward Management Using the WHPUOS

Once the volume patterns emerge and are broken out by day of week and time of day, we can use the patterns to predict the range of volumes for an upcoming day. Using the target WHPUOS, one can solve for the required worked hours (Cheat Sheet triangle). Using this prediction, managers can check the master staffing scheduled and make any necessary adjustments in advance.

As leaders become more adept at using the tools to predict staffing needs and accommodate fluctuations, they may be surprised by how flexible staff can be. Proficiency in understanding the volume fluctuations and maybe even affecting the workload flow allows managers to model the master staffing schedule to align with the department's predicted needs. An additional solution may be to develop a [more fluid workforce](#).

Forward management can become overly sophisticated; however, using these basic tools allows department managers to predict and prepare for whatever staffing needs lie ahead.

Summary

Demand-based staffing requires management at the cost center level for shorter intervals of time. This management approach requires the following foundational elements.

- Selected volume indicator or unit of services (patient day, visits, procedures)
- An agreed definition of productive or worked hours, OT, contract labor, orientation, education (but not using PTO hours)
- Installed mathematical statistic WHPUOS, worked hours per unit of service goal or target
- Implemented forward management practice based on a performance goals, applied predictive statistics and running *daily* dashboards
- Established formal compliance monitoring workgroups using accountability reporting with simple performance-tracking scorecards

Over the years, the term WHPUOS has been used in humorous ways (for the most part). In reality, the **Worked Hours Per Unit Of Service** (WHPUOS) is the foundational contrivance to matching the work to workers in short intervals of time.