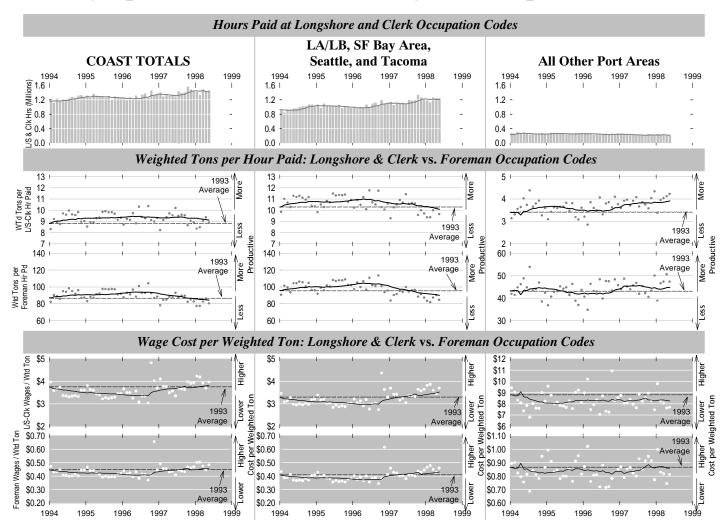




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# Productivity Measures by Month, 1994 to May 1998: Tonnage per Hour Paid and Wages Paid per Ton



#### CONSUMER PRICE INDEX U.S. CITY AVERAGE - ALL ITEMS (1982-84 = 100)

Urban Wage Earners & Clerical Workers

Month	1996	1997	1998	12 Mo.
JAN	151.7	156.3	158.4	1.34%
FEB	152.2	156.8	158.5	1.08
MAR	152.9	157.0	158.7	1.08
APR	153.6	157.2	159.1	1.21
MAY	154.0	157.2	159.5	1.46
JUN	154.1	157.4	159.7	1.46
JUL	154.3	157.5		2.07
AUG	154.5	157.8		2.14
SEP	155.1	158.3		2.06
OCT	155.5	158.5		1.93
NOV	155.9	158.5		1.67
DEC	155.9	158.2		3.31

Marine cargo handling productivity is described by various measures. The most common measure, which facilitates comparisons at both the macro and micro operational levels, is the amount of cargo moved per hour of labor paid for its movement.

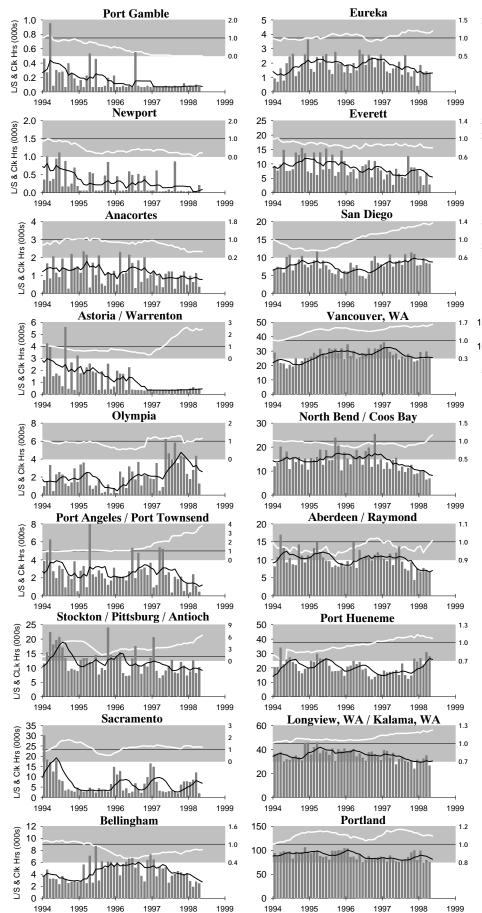
Other methods have been developed to measure productivity in the movement of specific types of commodities. Two such oftquoted examples include the number of containers moved per hour on and off a vessel and the number of containers moved per unit of terminal land area for a given period of time. These measures are usually only meaningful when discussing terminal operations on the micro level.

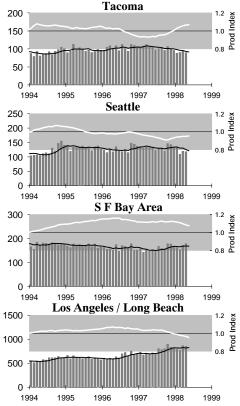
The productivity measures represented in the graphs in this study are based on the tonnage reported to PMA and the hours and wages paid to employees. Weighted tons per hour paid and wage cost per weighted ton handled provide gross measures of cargo handling productivity at the macro level across all types of cargo operations. In this study, separate analyses are shown for hours paid at long-shore and clerk occupation codes (occs) and for hours paid at walking boss/foreman occs.

The value of weighted tonnage used for this study is the sum of container TEUs X 17, Lumber & Logs tonnage, 1/6 of Automobiles & Truck tonnage, General Cargo tonnage,

Continued, bottom right of Page 2

### Weighted Tons per Hour Paid: Longshore & Clerk Occupation Codes





Graphs, this page: On each of the small multiple charts on this page, the monthly L/S & Clk hours are shown as vertical, dark gray bars, and twelvemonth running averages are plotted as a solid black line. The small gray graph at the top of each chart shows a six-month moving average of the monthly weighted tons per hour handled per L/S & Clk hour paid. The productivity values have been indexed to the 1993 average productivity for the port area being shown. (1.00 = 1993 average) The order of the port areas on pages 2 through 5 corresponds to that on page 2 of the June 1998 PMA Update, and it is based on increasing market share of weighted tonnage.

and 1/50 of Bulk Cargo tonnage. (A discussion of weighted tonnage can be found in the 1997 *PMA Annual Report*, page 63.)

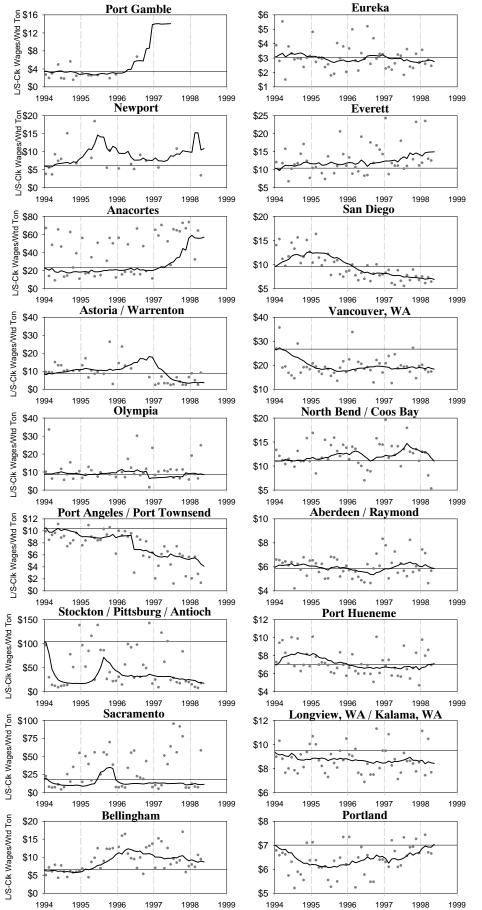
The weighted tonnage reported by port area (through April 1998) is shown in the June 1998 *PMA Update*. Tonnage data for the month of May 1998 have been included here.

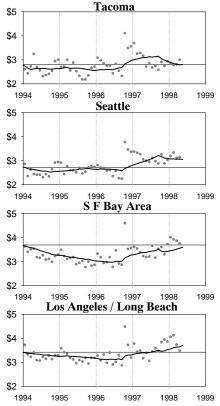
#### **Longshore & Clerk Hours Paid**

The graphs on the top row of page 1 represent the number of hours paid at longshore and clerk occs by month. One graph is shown for the total coast hours (left); one graph for the port areas of Los Angeles, Long Beach, the San Francisco Bay Area, Seattle, and Tacoma (center), and one graph for all of the other port areas on the Coast, combined (right). Each vertical bar represents the hours paid in a month, and the solid line plots sixmonth running averages. Similar graphs are shown on page 6 for each Area.

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## Wages Paid per Weighted Ton: Longshore & Clerk Occupation Codes





Graphs, this page: Each of the graphs on this page plots monthly costs as a small dot, and twelve-month running averages as a solid line. The cost value shown is the amount of wages paid at longshore and clerk occupation codes divided by the number of weighted tons reported in the month.

These hours exclude those paid at ILWU mechanics occs and at grain/warehouse occs; training and travel hours are also excluded. Hours at dispatch and gear occs are included.

Longshore and clerk hours have risen steadily over the past several years to the current level of 1.4 million hours per month. More than 17.1 million hours have been paid on the Coast at longshore and clerk occs in the 12 months ending May 1998, a 7.5% increase over the previous twelve month period. *This is the highest twelve month total since 1980.* 

The growth in hours is entirely attributable to the major port areas, as can be seen in the middle graph. The monthly hours paid in the other port areas, combined into one group, have actually declined in the past two years.

#### Weighted Tons per Longshore & Clerk Hour Paid

Dividing the number of hours paid in a given period into the number of weighted tons handled in the same period provides a gross measure of productivity for a port area. Weighted tons per hour has been shown in previous studies to have been increasing coastwise at a rate near 6% per year before slowing in the second half of 1994. (See *PMA* 

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