

Attachment F

Keigwin; Methodology for Estimating OPP ICR Wages Rates for Industry,
State, and EPA Labor Costs; July 25, 2006



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Memorandum

SUBJECT: Methodology for Estimating OPP ICR Wages Rates for Industry, State and EPA Labor Costs.

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Summary:

BEAD was asked by OPP divisions to standardize the methodology used to estimate the wages of personnel associated with the reporting of information collection requests (ICRs) by Office of Pesticide Programs to improve consistency and efficiency. One reason is that OPP is streamlining the ICR renewal process by consolidating OPP's ICRs into 6 categories (FEAD memo, 4-20-06). In this memo BEAD describes the methodology and data sources for calculating wage rates that are straight forward, consistent, and easy to replicate for the following:

- **Sectors**—industry, state government, and EPA.
- **Labor types**—management, technical, and clerical
- **Wages**—unloaded (basic wages), loaded (wages + benefits), fully loaded (wages + benefits + overhead)

Methodology

Sources of wage rates, benefits, and overhead are discussed in the tables and sections below.

Unloaded wage rate = hourly wage rate

Loaded wage rate = unloaded wage rate + benefits

benefits include all fringe benefits

benefits percentage = benefits/unloaded wage rate

Fully loaded wage rate = loaded wage rate + overhead

overhead includes rent, computer support, phones, and facilities

overhead percentage = overhead/loaded wage rate

Data Sources

Wage rates by sector. Average wage data for the relevant sectors are available in the National Industry-Specific Occupational Employment and Wage Estimates from the Bureau of Labor Statistics (BLS) at http://www.bls.gov/oes/current/oes_nat.htm. By using the same source and the same Standard Occupational Classification (SOC) for all sectors, consistency is insured. The specific NAICS (North American Industry Classification System) and specific website for each sector is as follows:

| ICR Sector | NAICS | NAICS Sector and Website |
|------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Industry | 325300 | Pesticide, Fertilizer, & Other Agricultural Chemical Manufacturing http://www.bls.gov/oes/current/naics4_325300.htm |
| State Government | 999200 | State Government http://www.bls.gov/oes/current/naics4_999200.htm |
| EPA | 999100 | Federal Executive Branch http://www.bls.gov/oes/current/naics4_999100.htm |

Wage rates by labor type. Within each of the above sectors, the wage data are provided by Standard Occupational Classification (SOC). The SOC system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. Each broad occupation includes detailed occupation(s) requiring similar job duties, skills, education, or experience. For more information on SOC and what is included in each SOC, see http://www.bls.gov/oes/current/oes_stru.htm. The SOCs used for the following labor types are listed below and apply to all of the sectors in the above table.

| Labor type | SOC # | Standard Occupational Classification |
|------------|---------|------------------------------------------------|
| Management | 11-0000 | Management Occupations |
| Technical | 19-0000 | Life, Physical, and Social Science Occupations |
| Clerical | 43-0000 | Office and Administrative Support Occupations |

Benefits. We assume that benefits are 43% of wage rates, based on benefits for all civilian non-farm workers from <http://www.bls.gov/news.release/cccc.t01.htm>.

Overhead. We multiply the loaded wage by 50% (EPA guidelines 20-70%) to get overhead costs. Overhead costs are added to the loaded wage rate to get the fully loaded wage rate.

Conclusion

The methods outlined above produce a realistic accounting of the wage rates of personnel whose efforts feed into the completion and submission of information to EPA. At the same time, these methods are relatively straightforward to derive, replicate, and update. Since these methods use wage and benefit statistics that are readily available from one source, the Bureau of Labor Statistics, which are updated periodically, they are easy to update and are consistent. This source should be used to update wage rates rather than applying an inflation factor. These wage rates are generally applicable to any information collection activity that requires some mix of management, technical, and clerical time for industry, state government, and EPA.

The tables below show the current labor cost estimates for industry, state governments, and EPA. In addition, we have provided the tables below in Excel worksheets (available upon request), which are easier to update. While we have provided sufficient information and tools for anyone in OPP to update these wage rates, we suggest requesting them from BEAD who will update these wage rates periodically. BEAD will also update them as requested provided that a sufficient lead time for the update is given. No other information is required for BEAD to update the wage rates, other than about a week's notice. You should also note that the websites listed here could change, although these websites were available last year as well.

INDUSTRY LABOR COSTS

| Labor Category | Formula | Managerial | Technical | Clerical |
|-----------------------------------|------------------------------|------------|-----------|----------|
| Unloaded Hourly Rate ¹ | = W | \$47.02 | \$30.21 | \$15.41 |
| Benefits Percentage ² | Lb = B/W | 43% | 43% | 43% |
| Benefits per hour | B = W*Lb | \$20.22 | \$12.99 | \$6.63 |
| Loaded Hourly Rate | Wb = W + B = W(1+Lb) | \$67.24 | \$43.20 | \$22.04 |
| Overhead Percentage ³ | Lo = OH/Wb | 50% | 50% | 50% |
| Overhead per hour | OH = Wb*Lo | \$33.62 | \$21.60 | \$11.02 |
| Fully Loaded Hourly Rate | Wf = Wb + OH = W + B + OH | \$100.86 | \$64.80 | \$33.05 |

1. Data Source: http://www.bls.gov/oes/current/naics4_325300.htm

Management: 11-0000, Management Occupations

Technical: 19-0000, Life, Physical, and Social Science Occupations

Clerical: 43-0000, Office and Administrative Support Occupations

2. Fringe benefits/wage per hour.

3. U. S. Environmental Protection Agency, *EPA Air Pollution Control Cost Manual, Sixth Edition*, EPA-452-02-001, January 2002, pg. 2-34. The loading for indirect costs is within the range of 20-70% of the load labor rate (wage + benefits) suggested in EPA guidance.

STATE GOVERNMENT LABOR COSTS

| Labor Category | Formula | Managerial | Technical | Clerical |
|-----------------------------------|------------------------------|------------|-----------|----------|
| Unloaded Hourly Rate ¹ | = W | \$33.29 | \$23.02 | \$15.75 |
| Benefits Percentage ² | Lb = B/W | 43% | 43% | 43% |
| Benefits per hour | B = W*Lb | \$14.31 | \$9.90 | \$6.77 |
| Loaded Hourly Rate | Wb = W + B = W(1+Lb) | \$47.60 | \$32.92 | \$22.52 |
| Overhead Percentage ³ | Lo = OH/Wb | 50% | 50% | 50% |
| Overhead per hour | OH = Wb*Lo | \$23.80 | \$16.46 | \$11.26 |
| Fully Loaded Hourly Rate | Wf = Wb + OH = W + B + OH | \$71.41 | \$49.38 | \$33.78 |

1. Data Source: http://www.bls.gov/oes/current/naics4_999200.htm

Management: 11-0000, Management Occupations

Technical: 19-0000, Life, Physical, and Social Science Occupations

Clerical: 43-0000, Office and Administrative Support Occupations

2. Fringe benefits/wage per hour.

3. U. S. Environmental Protection Agency, *EPA Air Pollution Control Cost Manual, Sixth Edition*, EPA-452-02-001, January 2002, pg. 2-34. The loading for indirect costs is within the range of 20-70% of the load labor rate (wage + benefits) suggested in EPA guidance.

EPA LABOR COSTS

| Labor Category | Formula | Managerial | Technical | Clerical |
|-----------------------------------|------------------------------|------------|-----------|----------|
| Unloaded Hourly Rate ¹ | = W | \$43.39 | \$30.93 | \$21.99 |
| Benefits Percentage ² | Lb = B/W | 43% | 43% | 43% |
| Benefits per hour | B = W*Lb | \$18.66 | \$13.30 | \$9.46 |
| Loaded Hourly Rate | Wb = W + B = W(1+Lb) | \$62.05 | \$44.23 | \$31.45 |
| Overhead Percentage ³ | Lo = OH/Wb | 50% | 50% | 50% |
| Overhead per hour | OH = Wb*Lo | \$31.02 | \$22.11 | \$15.72 |
| Fully Loaded Hourly Rate | Wf = Wb + OH = W + B + OH | \$93.07 | \$66.34 | \$47.17 |

1. Data Source: http://www.bls.gov/oes/current/naics4_999100.htm
 Management: 11-0000, Management Occupations
 Technical: 19-0000, Life, Physical, and Social Science Occupations
 Clerical: 43-0000, Office and Administrative Support Occupations
2. Fringe benefits/wage per hour.
3. U. S. Environmental Protection Agency, *EPA Air Pollution Control Cost Manual, Sixth Edition*, EPA-452-02-001, January 2002, pg. 2-34. The loading for indirect costs is within the range of 20-70% of the load labor rate (wage + benefits) suggested in EPA guidance.