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FINDING WAGE AND SALARY INFORMATION

Suzanne M. Ward and Heidi Ann Petruzzi

INTRODUCTION

Many different kinds of patrons are interested in wage and salary information: business people contemplating job changes, collective bargaining officials, personnel and recruitment officers, students choosing careers or preparing for job interviews, marketing professionals researching industries. However, in many cases wage and salary information is elusive. Some reports with current publication dates cite data that are several years old. Other information reflects national averages when a patron needs regional or state norms. Some sources report beginning salaries, but not typical wages for experienced employees. At times, salary information for managers and executives is easy to find, but not that for blue collar workers in the same industry. Tracking down useful figures can be a frustrating experience for both librarian and patron.

Most questions fall into one of two categories: occupational or industrial. Occupational wage questions involve finding salary figures for geochemists or English professors or shipping clerks. Patrons interested in industry wages often want information on the average paychecks for secretaries, CEOs, or technicians in a particular industry. Either of these two types of questions may be further complicated by the fact that the patron wants these figures to reflect geographical differences. Preferred geographical breakdowns range from regional to state to local.

While most libraries will not have all of the pertinent publications available in their collections, most

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referrals to the correct agencies and organizations can be made from consulting standard in-house sources.

This article emphasizes finding wage and salary information, not total compensation (which would include fringe benefits such as retirement plans, health coverage, vacation and sick leave benefits, and bonuses). The authors also focus on wage and salary information for jobs in the commercial sector, rather than in government agencies or nonprofit organizations. However, many of the same sources can be used to find wage information for military officers and museum directors as well as for florists and fork lift operators. Print sources receive primary attention, although some of these titles are also available in CD-ROM or online database formats. Internet files are an emerging source for some wage and salary information.

Because there are so many sources of wage and salary information, and almost as many reasons for needing figures on different types of industries or occupations, this article suggests several standard categories of sources. Librarians working with patrons on specific questions should use the article and accompanying checklist (see figure 1) as a starting point for finding wage and salary information, and then draw on their own knowledge and experience to suggest other likely sources. The list of sources at the end of the article cites the major titles mentioned in the text.

About Wage and Salary Statistics

In general, sources for salary statistics fall into two major groups. The first, consisting mainly of professional trade associations, trade unions, and some government agencies, collects primary data, usually through original surveys. The second, larger group, composed primarily of government agencies and commercial publishers, produces compilations or abstracts of the first group's original research.

The reader should exercise caution when using wage and salary statistics since the way organizations gather and report this information varies widely from institution to institution. One trade association may obtain salary figures from a survey of its members, then publish average earnings figures that include benefits such as overtime and bonuses. Another, in the same industry, could glean its data from job postings in a trade journal and report the median base salaries printed in the advertisements. In most cases, each source reveals the compilation and reporting methods the author utilized in the introduction, appendix, footnotes, or other explanatory sections.

Many wage and salary reports result from some type of telephone, mail, or personal survey given to employers or workers. For example, the Bureau of Labor Statistics' *Occupational Compensation Survey*

figures usually result from employer interviews conducted in person by bureau field economists. Sources for statistics in other publications include labor agreements, unemployment agency offers, civil service compensation charts and manuals, and job openings advertised over a particular time period. Strengths and weaknesses in each of these data sources affect the statistics and how useful they are to the reader.

One item to scrutinize when using surveys is the ratio of respondents or usable responses to the total pool. If the percentage is low, then the statistics may not be representative of the group as a whole. In surveys and other wage information, also pay attention to the survey population, compensation included, and statistics' calculations and denominations. Reports sometimes exclude particular segments of the population such as seasonal workers, the self-employed, those with or without certain education levels, companies that have more or less than a specified number of employees, firms with few job descriptions, employees who make above or below a certain dollar amount, or those people in a defined industry. If the reader needs wages for a specific population, he or she should confirm that the group is included in the report.

In addition to the population, examine the compensation components. Are only base salaries reported or are fringe benefits such as insurance, bonuses, and profit sharing added to the figures? Sometimes wages include overtime, but other reports adjust to a 40-hour work week. Calculations and denominations vary among reports as well and often make comparisons difficult. Be sure to notice labels such as median, average (mean), and first quartile, as well as per hour, per month, or per year. Are calculations made from actual wages paid or were they collected from placement advertisements?

As you can see, the sources and types of statistics vary tremendously between reports and within compilations. It behooves the reader to note the fine print and read explanatory passages when using all wage and salary data.

STANDARD SOURCES

Books

A few compilations gather diverse salary and wage information into one or two volumes. They are useful for general questions or for grasping the overall status of an industry or occupation. Often these sources contain older statistics and summary information, but they are a good "first stop" in a wage and salary search.

✓	RESOURCES	LOCAL CALL NO./ LOCATION
	Standard Sources	
	Books	
	<i>Occupational Outlook Handbook</i>	
	<i>American Almanac of Jobs and Salaries</i>	
	job specific career guide _____	
	<i>Statistical Abstract of the United States</i>	
	<i>American Salaries and Wages Survey</i>	
	Indexes	
	<i>Business Periodicals Index</i>	
	<i>American Statistics Index</i>	
	<i>Statistical Reference Index</i>	
	Specialized Sources	
	Trade Organizations	
	<i>Encyclopedia of Associations</i>	
	Association _____	
	<i>American Directory of Organized Labor</i>	
	Trade Union _____	
	Federal Government	
	<i>Occupational Compensation Survey: Pay Only</i>	
	City: _____	
	<i>Employment and Earnings</i>	
	Specific BLS title: _____	
	Other government agency: _____	
	Government document: _____	
	State Government	
	Labor department/agency: _____	
	Government document: _____	
	Local Government	
	Labor department/agency: _____	
	Government document: _____	
	Journals	
	<i>Guide to Special Issues and Indexes to Periodicals</i>	
	Journal title/issue: _____	
	<i>Ulrich's International Periodicals Directory</i>	
	Journal title: _____	
	Universities and Research Centers	
	<i>Research Centers Directory</i>	
	Research center: _____	
	Online	
	Local online catalog	
	LC Subject Heading: WAGES - _____	
	LC Subject Heading: _____-EMPLOYMENT	
	OCLC's EPIC/PRISM	
	PTS PROMT: event code 52 and product code= _____	
	ABI/Inform: _____-WAGES & SALARIES	
	Trade & Industry Index: _____-SALARIES, BENEFITS, ETC.	
	Subject specific database: _____	
	Subject heading: _____	

Figure 1: Resource Checklist

The *Occupational Outlook Handbook (OOH)* is an excellent starting point for patrons exploring career options since it discusses trends as well as earnings in various fields. *Occupational Outlook's* entries are in order by industry category (e.g., executive, administrative, and managerial occupations) and then by job type (e.g., employment interviewers). For each occupational title, the *OOH* provides a one- to two-page summary that includes not only earnings information, but also broad occupational descriptions, duties, working conditions, employment, training and advancement, job outlook, related occupations, and sources of information.

Most of the salary data appear in abbreviated form, use national averages, and limit statistics to general beginning, intermediate and/or experienced workers' earnings figures, but some occupational titles have more detailed data. For example, the engineers' summary shows beginning salaries for various specialties as well as average salaries for eight different experience levels. Figures for highest educational degree achieved and for federal government employees also appear in brief, and each specialty has its own summary with accompanying statistics. In contrast to the thoroughness of the engineers' section, entries for most of the other titles are shorter. Drafters' earnings information includes only a few median and average figures that appear within the text; there are no charts or tables.

If *OOH's* salary information is not sufficient or current enough for a particular question, patrons can refer to the "Sources of Additional Information" section for each entry and to the "Sources of State and Local Job Outlook Information" list at the rear of the book. Referrals may be necessary since *OOH* contains dated information.

As with the *Occupational Outlook Handbook*, *The American Almanac of Jobs and Salaries* encompasses a wide variety of occupations and discusses employment trends. However, the *Almanac's* focus is white collar service professions. Some blue collar information appears, but the intended audiences are college students, people seeking career changes, women searching for equal pay, and social researchers.

The *Almanac*, using both government and private data, includes salaries and wages for almost every conceivable profession, from college professors to stuntmen. Chapters cover government (federal, state, and local) employees, public figures, standard professions, scientists and technology professionals, corporate employees, key white collar jobs, representative businesses, health care, blue collar workers, and special groups (e.g., temporary workers and farmers). An extensive index cross-references occupational titles, industries, and organizations.

Information for some occupations is more complete or presented differently than others. For example, one of the salary charts containing data on college professors lists full professors, associate professors, and assistant professors in various disciplines. Figures for stuntmen are less thorough, showing the amount paid to a particular person for a single stunt and the approximate pay professional stuntmen receive. Data presentation also varies throughout the *Almanac*. For any given topic, statistics appear in tables, explanatory text, or a text/table combination. The charts on college professors are accompanied by descriptive paragraphs while the stuntmen's salaries are embedded in the text. Large portions of the book are dedicated to explanations of a profession and/or its salaries.

Although extensive in its coverage, two drawbacks mar the *Almanac's* usefulness. In particular, at least two to three years separate data collection and publication dates. Brief source citations at the beginning or end of each chart and paragraph allow patrons to refer to the original organization or document for more current statistics, but the citations' brevity may inhibit tracking down the source. Another more serious problem is that the author provides some statistics without explaining where he obtained the figures. While the tables usually include citations, the text often refers to the number of people employed in a field and/or their wages without documenting the source. This leaves the reader doubting the *Almanac's* reliability.

Patrons searching only for statistics can turn to the *Statistical Abstract of the United States*. Consisting almost entirely of charts, it differs in format from the *Almanac*, but contains a surprising wealth of wage and salary information. Several tables, usually located in the chapter entitled "Labor Force, Employment, and Earnings," provide figures that are an extension of the data in general almanacs such as the *World Almanac and Book of Facts* and the *Information Please Almanac, Atlas and Yearbook*. For example, a ten-year chart referenced under union members reveals median weekly earnings by age, race, sex, and job description/occupation. Another table on seamen shows wages for East and West coast-based merchant seamen over the past twenty years. Industry tables such as those on retail trade, mining, and communication are also helpful.

The *Statistical Abstract* index references wage and salary statistics under the heading EARNINGS by occupation, industry, or a variety of additional subheadings. Each entry refers to a chart number in the main text. Patrons may become frustrated if they believe these numbers refer to the pages rather than the tables, so draw attention to this idiosyncrasy. Not all of the index entries under earnings refer to wage or salary figures; some of the tables list earnings for an entire industry. For example, the airline chart shows, among

other statistics, airline industry revenue related to passenger-miles flown as well as express and freight revenue.

As with many compilations, *Statistical Abstract* contains information that is a few years old and relatively general. If the tables are not sufficient for patrons' needs, the librarian should refer them to the original source cited at the bottom of each chart. These notes point to excellent sources for more detailed or current statistics. For example, the union members chart reveals that those figures appear in each January issue of *Employment and Earnings*. The seamen information comes from the *U.S. Merchant Marine Data Sheet* (monthly) and unpublished statistics at the U.S. Maritime Administration.

Similar to *Statistical Abstract*, the *American Salaries and Wages Survey* (ASWS) also uses a tabular format, but ASWS covers an enormous variety of occupations. Spanning over 850 pages, the main chart identifies primary occupations (also with secondary occupation and/or industry designation), geographic areas for which statistics apply, wage denominations (hourly, monthly, and so on), approximate low, mid, and high range salaries/wages, original sources, and data collection dates/publication dates (usually one to five years older than ASWS' publication date). The *American Salaries and Wages Survey* is an essential title for all libraries with patrons who ask questions about wages.

ASWS compiles statistics on a variety of occupations to different degrees and from disparate sources. For example, ASWS lists pages of salaries for motor vehicle mechanics in various geographic areas and industries, but has only a single line for honey extractors. The mechanics' wage figures are gleaned from two- or three-year-old Bureau of Labor Statistics *Area Wage Surveys* (succeeded by *Occupational Compensation, Pay Only Surveys* and *Occupational Compensation, Pay and Benefits Surveys*) and include hourly first quartile wage, average wage paid, and third quartile wage data. Statistics from other sources and on less broad titles, such as honey extractors, also comprise a significant portion of the *Survey*.

Federal and state governments as well as trade associations and journals provide statistics for ASWS. As a result, the data seldom can be used for comparison purposes since the salary/wage range units (average wage, first quartile, senior range, median wage paid) and secondary occupation vary widely within primary occupational titles. Instead, this book is helpful in formulating a general impression of a particular profession's wages or for someone who is seeking data on a broad occupational title. Searches for narrow or uncommon occupational titles and/or data for a particular geographic area may not be as successful.

Two cross-reference indexes minimize the confusion produced by the variety of sources. The "Outline of Contents" refers the reader to standard or additional occupational titles and thereby prevents overlooked data. For example, the job title THINNER refers patrons to see also WEEDER AND THINNER. The "Geographical Outline of Contents" lists the data available in *American Salaries and Wages Survey* alphabetically by state, then town, and, finally, occupational title. This quick check assists anyone searching for state or local statistics.

If ASWS fails to answer patrons' questions, check the source list that follows the main chart. The editor identifies citations, purchase costs, survey periods, noteworthy items, and organization telephone numbers for each source; calls to staff at these organizations may produce the necessary statistics or referrals to places that can do so.

Vocational Guides

Although the *Almanac* and *Occupational Outlook Handbook* provide some job search and career information, patrons who need additional data on this aspect may wish to refer to one of the many vocational guidance and job hunting books that include salary information amidst the tips on interview techniques and resume preparation. Representative titles include the following:

- *Aviation Maintenance Directory of Employers and Salary Survey*,
- *Educator's Job Search*,
- *Healthcare Career Directory*, and
- *Job Choices in Science and Engineering*.

Indexes

Many indexes provide access to some of the salary and wage information within the index's specialty. For example, references to engineering salaries may appear in *Engineering Index* or economists' earnings might be listed in *Social Sciences Index*. However, the following two general indexes provide better coverage of wage data than most specialty indexes.

Business Periodicals Index (BPI), in paper, CD-ROM, and online through First Search, covers a variety of business and industry publications with topics ranging from banking to public utilities. The most helpful of several wage and salary headings is WAGE SURVEYS, but other good ones include WAGE DIFFERENTIALS, EDUCATION AND EARNINGS,

INCOME, and WAGES AND SALARIES. Of the more relevant access points, WAGES AND SALARIES is broadest in scope, but it is broken into subcategories such as STATISTICS and FORECASTING to enhance access.

To find wages or salaries for a particular occupation, either look under that job, such as MAGAZINE DESIGN, or beneath a wage heading like WAGE SURVEYS. For example, in one volume of the *BPI* the reader finds "Folio's 1993 design salary survey: designers' salaries show modest gains" under the subject headings WAGE SURVEYS, MAGAZINE DESIGN and PERIODICAL PUBLISHERS AND PUBLISHING—OFFICIALS—SALARIES, PENSIONS, ETC. The citation for this article shows that it appears in *Folio's* November 1993 issue on pages 66-74. On those pages, in various tables and charts, are figures for creative directors, art directors, and associate art directors. One noticeable advantage in these figures, as compared to those in the above-mentioned books, is that the statistics are more current. Wilson publishes *Business Periodicals Index* monthly; even though the references are a few months behind the source publication date, this lag time is better than the years that sometimes separate publication dates from compilations.

Like *Business Periodicals Index*, *American Statistics Index (ASI)* and *Statistical Reference Index (SRI)* come out monthly; the monthly volumes are compiled into annual and then cumulative (multiple-year) editions. *ASI* and *SRI* are released in two parts—abstracts and indexes. In *ASI*, the abstracts describe thousands of federal government publications including their frequency, length, cost, Government Printing Office (GPO) stock numbers, Library of Congress card numbers, detailed breakdown of the publication's contents, and more. The index volume divides into several parts, with access by subject, category, title, agency report numbers, and Superintendent of Documents (SUDOC) numbers.

SRI similarly details selected state government and private publications. Obviously, *SRI* does not list SUDOC or GPO stock numbers in most cases, but it adds the ISSN/ISBN, availability, and coverage dates. *SRI* also is divided into sections, with access by subject/name, category, issuing source, and title.

In both *SRI* and *ASI*, the subject index provides the best access to wage data. EARNINGS, GENERAL is the most useful heading, but there are several "see also" references to secondary categories such as WAGE SURVEYS, FEDERAL PAY, and PROFESSIONALS' FEES. Additional helpful access points are EARNINGS, LOCAL AND REGIONAL and EARNINGS, SPECIFIC INDUSTRY. They all lead to wage information.

For example, data on teachers' salaries appear in *ASI's* subject index under EDUCATIONAL EMPLOYEES PAY, which the reader reaches through a cross-reference from EARNINGS, SPECIFIC INDUSTRY. The index entries are relatively brief, listing only the subject and a number that refers to a corresponding abstract. In this example, 4828-45 refers to the Department of Education's *America's Teachers: Profile of a Profession* published in May 1993. The description for this publication includes notes on every chapter including one showing that chapters 8 and 9 discuss teacher compensation and have charts or tables on average salary and outside income. Patrons then must locate the publication to see the figures described.

The *American Statistics Index* is available online and on CD-ROM in addition to the hard copy, while *Statistical Reference Index* comes only in paper and CD-ROM formats. The reader should use caution when searching the electronic formats. Due to the multitude of descriptors for publications such as Census documents and the lack of controlled vocabulary attached to other items, the authors found more relevant records by using a precise key word search such as TEACHER?(2N)(PAY or SALAR? or EARNING? or WAGE?) than by using descriptors.

Although somewhat cumbersome, *ASI* and *SRI* provide access to a wide range of valuable federal, state, and private salary statistics. They are thorough sources with detailed explanations and descriptions that enable the reader to focus on the necessary information and obtain the document.

Unfortunately, some indexes are not as complete as *ASI* and *SRI*. For example, although *Statistical Sources* is, according to its subtitle, "A Subject Guide to Data on Industrial, Business, Social, Educational, Financial, and Other Topics for the United States and Internationally," the citations are so sketchy that tracking down the sources could be difficult. The entries are composed of the publishing organization's name, address, and telephone number, as well as the source's title. No authors/editors, series information, or dates are included except for those items in a section entitled "Selected Bibliography of Key Statistical Sources." The bibliography's entries provide annotations for the major sources cited throughout the text as well as for additional tools, such as glossaries, that are related to statistics.

What *Statistical Sources* lacks in entry composition, it makes up for in access. It is relatively easy to locate information according to subject headings. For example, cross-references at SALARIES AND WAGES and WAGES AND WAGE RATES lead the reader to the heading EARNINGS; all of the salary information is collected here under various subheadings such as WHOLESALE TRADE. While there are only a few

pages of salary publication citations, suggestions for additional sources are in the "Federal Statistical Telephone Contacts" and "Federal Statistical Data Bases" subject lists. These sections provide contact names or database suggestions within broad categories such as LABOR.

For wage and salary information, *Statistical Sources* may be a good starting point, but more extensive searching will probably be necessary. Its sketchy citations make *Statistical Sources* a better stepping-stone than a reliable information source.

SPECIALIZED SOURCES

General reference sources provide summary information about wages for a variety of occupations, but some patrons need more specific figures. An average salary for beginning engineers from a source quoting three-year-old statistics will satisfy most high school students, but a mid-career chemical engineer looking for a new position will want more recent, detailed information.

Trade Associations

The *Encyclopedia of Associations* is a gold mine for identifying trade and professional organizations in virtually every profession. The National Organizations volumes will probably be the most helpful, but a check through the Regional, State, and Local Organizations set may turn up information about regional salary surveys conducted by these types of associations. Many of the entries indicate whether an association compiles and publishes salary surveys of its members or of its profession. Following are examples of associations whose entries specifically mention the availability of wage and salary publications:

- American Electronics Association,
- Association of Accounting Administrators,
- International Foodservice Manufacturers Association,
- National Council of Community Mental Health Centers,
- Society of the Plastics Industry,
- Women in Scholarly Publishing, and
- Wyoming Bankers Association.

Other entries simply indicate that the associations compile statistics; compensation data may be one of the categories.

As an example of the detail provided by many association salary surveys, the authors examined the American Association of Colleges of Pharmacy's annual *Profile of Pharmacy Faculty*. The 70-page publication gives details on pharmacy faculty salaries by highest degree earned and by sex; annual percent salary increases by faculty rank; average salary by rank depending on the number of years' experience; average salary by sex, by rank, and by institution types (public or private); and many other tables. Publications such as the *American Salaries and Wages Survey* might summarize small portions of such an association survey, but the level of detail mentioned above is generally available only from the association itself.

Certainly a trade or professional association, if it regularly collects salary information, will have some of the best information for its field. Most library budgets do not allow them to buy more than a handful of association salary surveys, but a patron seriously job hunting in a professional field may want to contact the associations personally and buy copies of relevant publications. Interlibrary loan requests are generally unsuccessful as the most recent editions of salary surveys are usually reference books. But be aware that some associations may compile but not publish salary data; staff may share some unpublished information with a caller. Patrons planning to call associations after identifying particular salary surveys should be warned that these surveys often change titles and/or publication frequency.

Trade Unions

As with associations, some trade unions collect and compile compensation information about their members. To identify trade unions for a particular job, check the latest edition of the *American Directory of Organized Labor*, or, if this comprehensive work is not available locally, the *Encyclopedia of Associations*. The telephone yellow pages also list local chapters of national unions under associations. A telephone call to a union's national headquarters is the best way to ascertain the availability of recent publications. The patron should not be surprised, however, if some unions do not compile wage statistics at all or, if compiled, do not release them to the public.

Commercial Services

Some patrons prefer not to do their own research or have specialized needs that cannot be met through the sources described in this article. They may prefer

to contact a firm with experience in conducting or interpreting salary surveys, such as Abbott, Langer, & Associates. Suggest that the patron review relevant listings in a source such as Gale's *Consultants and Consulting Organizations Directory*.

**GOVERNMENT PUBLICATIONS AND
GOVERNMENT AGENCIES**

While trade unions do not always collect statistics, it sometimes seems that the government does little else. Three levels of government agencies publish wage and salary statistics: federal, state, and local. Federal publications may focus on profession, industry, or region. State and local documents are, by definition, limited to a particular region, but they also tend to provide better coverage of industries as opposed to professions or job titles.

Federal Government

The Bureau of Labor Statistics (BLS) provides much of the federal government's wage and salary data. Statistics are for national, state, and/or local levels and the multitude of topics appears endless. BLS produces so many serials and books on wages and salaries that it is impossible, in this article, to mention any but the primary sources of federal wage and salary statistics and a few selected other examples.

Two significant serials are *Occupational Compensation Surveys: Pay Only* and *Employment and Earnings*. The compensation studies (previously entitled *Area Wage Surveys*) pertain to particular geographic areas, listing occupational earnings for representative positions within broad industry divisions. For example, the June 1993 *Occupational Compensation Survey: Pay Only* for Indianapolis shows the mean, median, and middle range wages for state/local government computer programmers (level 2) as \$477/week, \$435/week, and \$419 to \$519/week, respectively. Similar categories appear for engineers, budget analyst supervisors, drafters, fire fighters, maintenance pipe fitters, and others. These statistics are recent, usually collected within about six months of the publication date. In this example, the Indianapolis June 1993 *Occupational Compensation Survey: Pay Only* was published in November 1993 and the data collected from May to September 1993—very current compared to the standard book sources in this article. A list of the most recent compensation surveys appears on the back covers of each survey.

The second basic BLS resource is *Employment and Earnings*, a monthly serial listing household, establishment, and state and area labor force data. For example,

the June 1993 issue shows the average hourly earnings for guided missiles and space craft manufacture workers to be \$16.45 in 1992, \$16.32 in April 1992, \$17.26 in March 1993, and \$17.22 in April 1993. Another chart organizes the average earnings of manufacturing industry production workers according to state and, usually, several towns within the state. The occupational titles vary from issue to issue, but are usually consistent from year to year.

Sometimes *Employment and Earnings* includes special features such as the "Earnings by Detailed Occupation" charts in January issues. This table reveals earnings for various occupations such as bus drivers, roofers, millwrights, hotel clerks, actors and directors, and dietitians. For each title, the chart lists the previous year's median weekly earnings for men, women, and both sexes. Other charts in the January issue, such as the one entitled "Average Hours and Earnings of Production or Nonsupervisory Workers on Private Nonfarm Payrolls by Major Industry, 1964 to Date," include salary data also. Patrons can locate individual charts through indexes such as *American Statistics Index*, Newspaper and Periodical Abstracts, and Statistical Sources.

Aside from *Employment and Earnings* and *Occupational Compensation Surveys: Pay Only*, the abundance of other BLS sources with wage and salary information include the following:

- *Air Transportation Wage Survey*,
- *Average Annual Pay by State and Industry, 1992*,
- *Employment and Wages: Annual Averages*,
- *Employment, Hours, and Earnings United States, 1981-1993* (broad industry hourly earnings by state and selected cities),
- *Handbook of Labor Statistics*,
- *Occupational Earnings in Banking, Selected Metropolitan Areas*,
- *Usual Weekly Earnings of Wage and Salary Workers* (quarterly),
- *Wage Survey, Deep Sea Tankers*, and
- *White Collar Pay, Private Service-Producing Industries*.

Most of these publications are updated irregularly. There are thousands of other sources as well.

For assistance identifying the correct BLS publication, patrons can turn to the Bureau of Labor Statistics and/or the Government Printing Office (GPO). BLS operates a hotline (current number 202-606-7828) where patrons can ask an information specialist which BLS publications will answer their questions. Information specialists answer the line Monday-Friday, 8:15-4:15 EST; follow the automatic answering system instructions to speak with a specialist. In addition, the January 1994 issue of *BLS Update* contains the December 1993 "Bureau of Labor Statistics Telephone Contacts for Data Users." These three pages list telephone numbers to call for help on various topics or with specific publications; the telephone list is updated approximately once per year with copies available through the hotline information specialists. Regional BLS libraries or offices are willing to help sort out publication or statistics queries; telephone numbers are in most BLS publications. To identify currently available Government Printing Office publications, check the GPO Publications Reference File (e.g., Dialog File 166). Many of the most current BLS publications are referenced here (e.g., *Occupational Compensation Surveys: Pay Only*). Refer to the *GPO Monthly Catalog* (online or print) for older documents.

Besides the BLS, dozens of other federal agencies collect salary information in their publications and offices. Browsing through the *Federal Yellow Book* and *Federal Regional Yellow Book* suggests numerous possibilities. Using the index or the table of contents in the *Yellow Books*, identify the office related to the subject for which statistics are needed. If a government office has the required information, it usually takes several telephone calls to track down the correct contact person; a circular or dead-end series of referrals can be the result in other cases. Sometimes the statistics are in a publication or they may be a computer generated printout from an internal office database.

You never know what lies buried in the depths of the federal government until you make the calls. For instance, within the Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Bureau of Health Professions lies the Division of Nursing, Analysis Section. Every few years the section publishes a sample survey entitled *The Registered Nurse Population* that contains several tables on nurses' salaries. Some other non-BLS government publications that include wage and salary information are

- *Condition of Education*, Center for Education Statistics,
- *Digest of Education Statistics*, Center for Education Statistics,

- *National Transportation Statistics*, Department of Transportation, and
- *Sourcebook of Criminal Justice Statistics*, Bureau of Justice Statistics.

State

There are several ways to identify the departments on the state level that might compile salary and wage statistics. Try the government pages in the capital city's telephone directory; the *State Yellow Book*; the *State Executive Directory*; the "Sources" section at the back of the *ASWS*; the "Source of State and Local Jobs Outlook Information" at the back of the *OOH*; the agency telephone directory published by your state government; or the page titled "Cooperating State Agencies" in BLS' *Employment and Wages: Annual Averages* publication. Within each state government, look for departments with titles like Labor, Human Resources, Workforce Development, Employment, or Training. Usually these departments have statistics divisions (e.g., Minnesota Department of Jobs and Training, Research and Statistics Division), which typically publish salary statistics. These departments publish statistics arranged by city, county, groups of counties, state, occupation, industry, or some combination thereof. Examples for one state are

- *Indiana Employment Review* (monthly),
- *Indiana Employment Review: Annual Summaries*,
- *Indiana Occupational Wage Survey: Manufacturing Industries, Northeast Indiana*,
- *Indiana Wage Survey: Tippecanoe County, Manufacturing Industries*,
- *Occupational Staffing Patterns: Selected Non-Manufacturing*, and
- *Occupational Wage Survey: Indiana* (annual).

By using sources such as these, patrons can learn such information as median wages for crane operators, secretaries, or programmers. Usually blue collar occupations are better represented than white collar ones, and the publications may concentrate on beginning wages rather than salaries paid to experienced workers. If a patron is looking for information that is not covered in these publications, a call to the appropriate state agency often results in a contact with a state employee willing to send sample issues of other reports,

or even to generate a tailored report from an in-house database.

Local

Most local (county and city) governments rely on their state labor departments to conduct and compile wage and salary surveys. However, large metropolitan areas' city or county governments may publish salary surveys, often for city or county employees, but sometimes also for other area workers. Check the *Municipal Yellow Book* or the appropriate city's telephone directory to identify departments that may collect wage and salary information. Following are examples of publications issued by cities or counties:

- *Chicago Area Salary Survey Results*,
- *Memphis, Tennessee Area Wage Survey*,
- *Salary Schedule and Compensation Plan* (Seattle), and
- *Semi-Annual Regional Governmental Salary and Fringe Benefit Survey* (Cook County, Illinois).

Journals

Trade journals are an invaluable source of salary and wage statistics. These publications disseminate information to members of the trade and, along with trade associations, are industry advocates. As such, salary information sometimes is published on a regular basis either in special issues or in a specific regular issue. The challenge is to locate the journal title and issue that contains salary data. The *Guide to Special Issues and Indexes to Periodicals* provides a starting place.

First, check the *Guide's* index under the heading salary surveys to locate a list of occupations covered. Then, using the references, identify the appropriate descriptive entry in the alphabetical list. Each description contains citation and special issue information. For example, the index lists a paper and pulp industry salary survey. The reader is directed, by entry number, to *TAPPI Journal*. Under the "Special Issues" section of *TAPPI Journal's* description, a line indicates that the salary survey is published in each August issue. The patron then locates the most recent August issue of *TAPPI Journal* to find a summary of *TAPPI's* annual salary survey.

According to the *Guide*, there are regularly recurring salary surveys for each index entry. Unfortunately, the publishing industry changes constantly; as a result, some surveys are no longer published or the

publication information differs from that listed. Of the three salary surveys the authors attempted to locate, only one is available as cited in the current edition of the *Guide*. Since the publishing industry changes rapidly, often the best course of action is to call the journal publisher directly.

If the patron knows the titles of the prominent journals in a particular field, locate the telephone numbers in the front of the journal or in *Ulrich's International Periodicals Directory* and suggest that the patron call the publisher. If the patron does not know the journal names, use *Ulrich's* subject entries to identify appropriate titles. For example, a prominent periodical for university officials is *The Chronicle of Higher Education*; call the publisher to identify the recent issues containing information about college administrators' salaries. In choosing a source, lean toward the news publications rather than technical journals since the latter usually contains scientific information rather than the business aspects (such as salaries and wages) of the field.

Sometimes the publisher is willing to fax or mail the statistics at no charge or for a small fee. Publishing staff may simply direct patrons to the appropriate issues of their journal or possibly refer them to another publication or trade association.

Universities and Research Centers

Universities and research centers are additional sources of wage and salary information. These facilities provide a multitude of unpublished or selectively distributed salary data. The question is where to start. There are thousands of research centers nationwide that specialize in a seemingly infinite number of topics. Where are these organizations located? What are their specialties? How does one contact them?

Patrons find the answers to some of these questions in the *Research Centers Directory*. This two-volume compendium contains descriptions of thousands of independent and university-sponsored research facilities such as the Child Care Employee Project (now the National Center for the Early Childhood Work Force), Institute of Industrial Relations (Berkeley), and Institute for Women's Policy Research. The entries include directory information, directors' names, organization notes (e.g., sources of support, staff, former names, organization structure), research activities and fields, and publications and services. The master index cross references centers' names, sponsoring organizations, and subjects; geographic and subject indexes provide additional points of access.

It behooves the patron to check both the subject and master indexes for salary and wage information. The subject index contains several relevant entries, such

as the above-mentioned Child Care Employee Project, under WAGES AND SALARIES. Subject index entries for occupation-specific centers listed under occupational title or field of interest may be helpful also. The master index, using a free-text approach, allows the reader to scan the centers' names by key word and also identify all of the research facilities at a particular university. Having a list of centers at a specific university lets the user note resources that may be helpful for locating state or local statistics; also try the geographic divisions within subject index headings.

In addition to the paper format, the *Research Centers Directory* is available online as the Research Centers and Services Directory (e.g., Dialog File 115). The electronic version consists of this title as well as the *International Research Centers Directory*, *Government Research Directory*, and *Research Services Directory*. Particularly useful in the online version is searching the research descriptors field to locate any mention of wages or salaries. Some false hits result, but other items surface that might not in a manual search. For example, The Business and Professional Women's Foundation research descriptors include "wage work," but the foundation is not cross-referenced under wages and salaries in the paper version.

Another helpful tack is contacting an appropriate business/economic development center. Many of these centers, such as the Bureau of Business & Economic Research and Center for Manpower Studies at the University of Memphis (formerly Memphis State University), do not collect and publish their own statistics, but they receive wage and salary information from the government and other local sources. Staff are knowledgeable about local statistics even though they do not produce the data. Some development organizations maintain their own data networks from which statistics can be selectively downloaded. For example, the Economic Information Development Network at the Indiana Business Research Center (Indiana University) provides electronic access to a compilation of government economic statistics including some broad industry wage figures.

Once patrons locate the appropriate organizations a simple telephone call may produce anything from formal publications to a referral or a response that the information does not exist. If the research center sends the data, the costs vary widely.

ONLINE SOURCES

Online sources fall into two categories: online catalogs and database files. There are two ways to check an online catalog to see if an institution holds the salary surveys the patron needs. First, search by

the corporate author, such as the American Institute of Graphic Arts. This approach clearly will not work well for associations like the American Medical Association or for government agencies. The resulting number of hits will be too many to browse easily, or the agency name will be lengthy and subject to name changes. The second approach is to search using the LC subject headings WAGES or EMPLOYMENT, e.g.:

TEACHERS - EMPLOYMENT,
WAGES - CONSTRUCTION WORKERS, and
WAGES - HOTELS.

This strategy works for searching in individual local catalogs or in OCLC's EPIC or PRISM databases. A sample search in EPIC using the subject heading WAGES combined with place names turned up references such as

- *Market Analysis of Chicagoland Salaries* (Management Association of Illinois),
- *Memphis Area Salary and Benefits Survey* (Mid-South Compensation Association),
- *Non-Farm Wage and Salary Employment in Maine by Month* (Maine Department of Labor, Bureau of Employment Security, Division of Economic Analysis and Research),
- *Reno Area Wage Report* (Employment Security Department, State of Nevada), and
- *Salary Survey of Chicago Area Hospitals* (Chicago Hospital Council).

You will certainly find references to articles about salaries for the major professions and industries in online databases, but it is usually much less expensive to use one or several of the sources previously listed. Using databases to find articles about specialized jobs or industries is often both expensive and "hit and miss." If the sources above have failed and a database search is the only remaining alternative, be sure to limit by year and/or country as appropriate to hold down costs. Be advised that you may find few references for specialized jobs, or that what appears to be a good retrieval list may contain many references of marginal value. Browse by title before printing in a longer, more expensive format. For every relevant article ("Entry Reporters' Pay Barely Paces Inflation"), there will almost certainly be several irrelevant ones ("Toyota Considering Cutting Winter Bonuses").

PROMT, ABI/Inform, and the Trade and Industry Index are three good databases to check for most jobs or industries. In PROMT, use the event code 52 (Personal Income/Employee Compensation) combined with the product code for the profession or the industry (e.g., pc=8527001 for engineers or pc=2711000 for newspapers). In ABI/Inform, search the descriptor WAGES & SALARIES combined with the descriptor for the profession or industry (e.g., ENGINEERS or HEALTH CARE INDUSTRY). For the Trade and Industry Index, use the descriptor subheading SALARIES, BENEFITS, ETC. linked with the descriptor for the profession or industry (e.g., TRAVEL AGENTS or SOUND RECORDING INDUSTRY); or use the SIC codes, if provided (e.g., 6411 for insurance agents, brokers, and service). In the Trade and Industry Index there is also a descriptor for WAGE SURVEYS, but as it is not consistently applied to index articles about wage surveys, do not rely on it. For example, *Computerworld's* eighth annual salary survey in the 5 September 1994 issue is indexed as MANAGEMENT INFORMATION SYSTEMS—SALARIES, BENEFITS, ETC. without using the descriptor WAGE SURVEYS.

In a few specialized cases, checking subject databases is helpful, such as searching Compendex for articles about engineers' salaries. For each database determine the appropriate descriptors (salary, wages, income, compensation, pay) since using these terms as key words in free text will result in a large number of imprecise retrievals.

Precision can also be difficult in Internet searching. While the Net is an ever-growing online source with an abundance of wage and salary statistics, it is by nature uncontrolled. Internet directories and files are not indexed with consistently applied vocabulary terms, and key word searching using truncated variations of wages, earnings, and salaries produces thousands of hits. Combining one or more of these terms with a job title (truncated) such as engineer or teacher narrows the search to relevant hits such as "Monthly Salaries of Scientists and Engineers by Field, Degree Level, and Years Since First Degree, 1987," but it also eliminates the abundance of more general titles, such as "Income & Wage Summaries for Virginia Counties," that do not contain professions' names in the title.

Whatever strategy the searcher uses, not all of the necessary information may actually reside in the Internet file. For instance, there are postings for American Chemical Society (ACS) salary surveys, but the reader must contact ACS using the number provided in order to purchase the documents. Another record is a notice about the World Bank 1990 conference proceedings entitled "Primary School Teachers' Salaries in Sub-Saharan Africa." The user must then locate the World Bank's directory information and inquire about

the document's availability. Other organizations, such as the Department of Education's National Center for Educational Statistics, post complete files, such as the center's annual salary survey of postsecondary institutions. All of the statistics and explanations are provided so that these large documents can be downloaded. Even decompression directions are included, which is not always the case on the Internet. Sometimes there is no indication that a file is compressed and there are no instructions for reading the data.

Of course, some of the information available on the Internet is reliable while some is not. Many documents do not list the source or even the provider's name, have inaccessible data, or are, in spite of a terrific title, an unreadable jumble of characters. The file even may be empty. Since reliability is a key factor, constantly question whether or not the source and data are dependable and accurate. When in doubt, contact the original source or, if verification is impossible, discard the data. Use this abundant source with caution.

CONCLUSION

Finding wage and salary information need not be a difficult task if the librarian or patron is willing to spend a little time checking relevant sources and making a few telephone calls. Clearly, not all the sources cited in this article should be consulted for each question. Calling a trade union to ask for information about salaries for miners would not be an appropriate action to answer a high school student's general question, but it might be a good source for helping an experienced engineer who is applying for a job with a mining company. The accompanying checklist (see appendix 1) cites the major sources for wage and salary information and also provides space for customizing a search. The authors recommend that library staff fill out a master checklist with call numbers and locations for the major sources, and then reproduce the page for patrons to use as a worksheet to help them answer their own specific questions.

LIST OF SOURCES

The following abbreviated entries list the major titles discussed in this article and note the publication frequency. Because the titles, editors, publishers, and/or frequency tend to change often, the reader is advised to check local catalogs to ascertain the most recent title/edition.

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American Almanac of Jobs and Salaries. Avon Books (irregular).

American Directory of Organized Labor. Gale Research (irregular).

American Salaries and Wages Survey. Gale Research (biennial).

American Statistics Index. Congressional Information Service, Inc. Print, online and CD-ROM editions (annual with monthly supplements; monthly online; quarterly CD-ROM).

Business Periodicals Index. H.W. Wilson. Print and CD-ROM editions (monthly).

Employment and Earnings. Bureau of Labor Statistics. GPO (monthly).

Encyclopedia of Associations. Gale Research. Print and online editions (annual; semiannual reload online).

Guide to Special Issues and Indexes of Periodicals. Special Libraries Association (irregular).

Occupational Compensation Survey: Pay Only. Bureau of Labor Statistics. GPO (annual or biennial depending on SMSA).

Occupational Outlook Handbook. Bureau of Labor Statistics. GPO. Print and CD-ROM editions (annual).

Research Centers Directory. Gale Research. Print and online editions (annual; semiannual reload online).

Statistical Abstract of the United States. Bureau of the Census. GPO. Print and CD-ROM editions (annual).

Statistical Reference Index. Congressional Information Service, Inc. Print and CD-ROM editions (annual with monthly supplements; quarterly CD-ROM).

Ulrich's International Periodical Directory. R.R. Bowker. Print and online editions (annual with three supplements; monthly online).

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