

Microscopy Today 2004 Salary Survey Results

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Salary Surveys always create considerable interest. Although a less formal study was conducted several years ago via the Microscopy Society listserver, the authors are not aware of a complete study since the one conducted by the MSA nearly 20 years ago. The current study followed a format frequently used by Microscopy/Microscopy Education (MME), typically delivered at microscopy-related scientific meetings to gather trends on new and existing instrumentation. It was mailed the middle of 2004 to nearly 15,000 US readers of Microscopy Today. Returns were collected and processed by an independent contractor. The survey was anonymous. We asked that respondents identify the US state that they work in only so that we could report geographical salary data. The raw responses were destroyed.

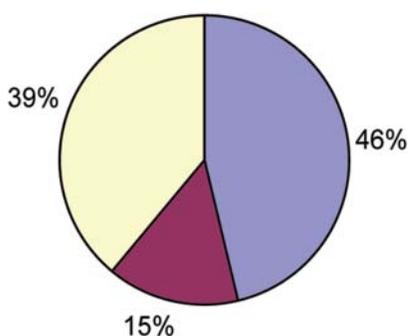
The survey yielded a typical 3% response (nearly 500 responses), most of whom completed most or all of the survey. Normally 360 responses are needed for an error range of $\pm 3\%$. However, as you shall see in the data, some rather small sample sizes are reported for completeness (and curiosity) sake that could not pass any statistical confidence test. For example, only 11 medical doctors responded with salary data. To avoid biasing the data, these responses were reported separately from non-MDs working in the medical field.

For the sake of limited space in this article, the data are reported graphically rather than in table form. To read, simply follow the bars of interest. Each bar denotes the percentage of that population that reported a specific salary range. For example: the salaries of individuals with bachelors vs. those with masters' degrees.

To obtain a PDF of the survey questions, email your request to Ron Anderson at the email address above.

The study also contained non-salary related questions regarding data on techniques employed, instrument acquisition plans, and equipment usage that will not be reported here. For a summary report on that special study, contact Barbara Foster. High points of the study are discussed below, within each caption.

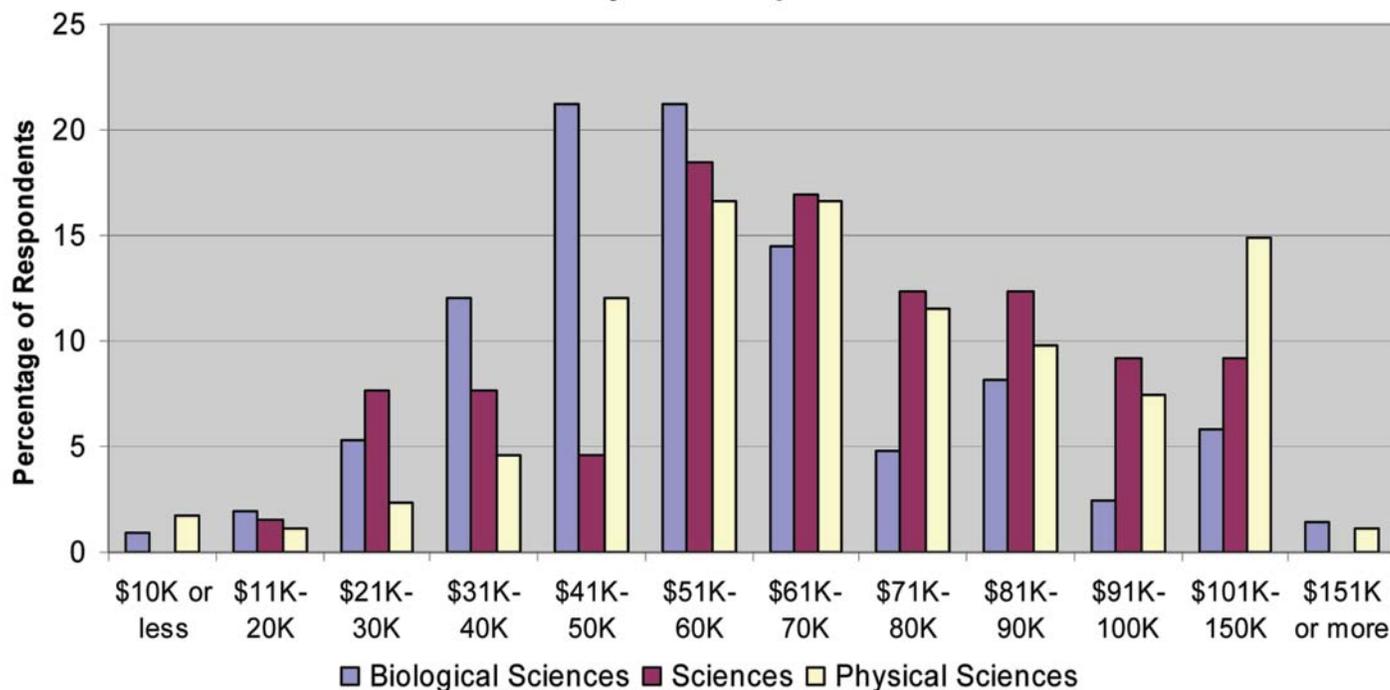
Respondents by Discipline Categories



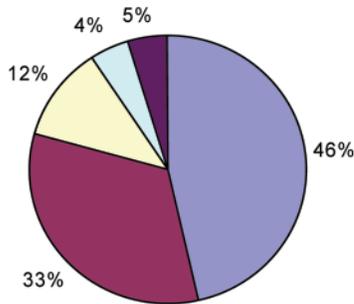
■ Biological Sciences ■ Sciences □ Physical Sciences

Figure 1a, Pie Chart and Figure 1b, Bar Chart. These data representations condense the response categories presented in question 4 of the survey: Which category best describes your discipline? The data classified as Biological Sciences includes responses from those that elected: Biology + Biotechnology + Medicine + Pharmaceuticals. The Physical Sciences data includes responses from those that elected: Materials Science + Nanotechnology + Semiconductors + Forensics. The Sciences category name was used to collect responses from non-traditional microscopy disciplines: Chemistry + Physics + Geology + Earth and Environmental Sciences. As expected, salaries for those in the Biological Sciences lags salaries in the Sciences and Physical Sciences categories. The high-salary spike for the physical sciences is attributable to responses from those in nanotechnology and semiconductor sciences.

Salary vs. Discipline



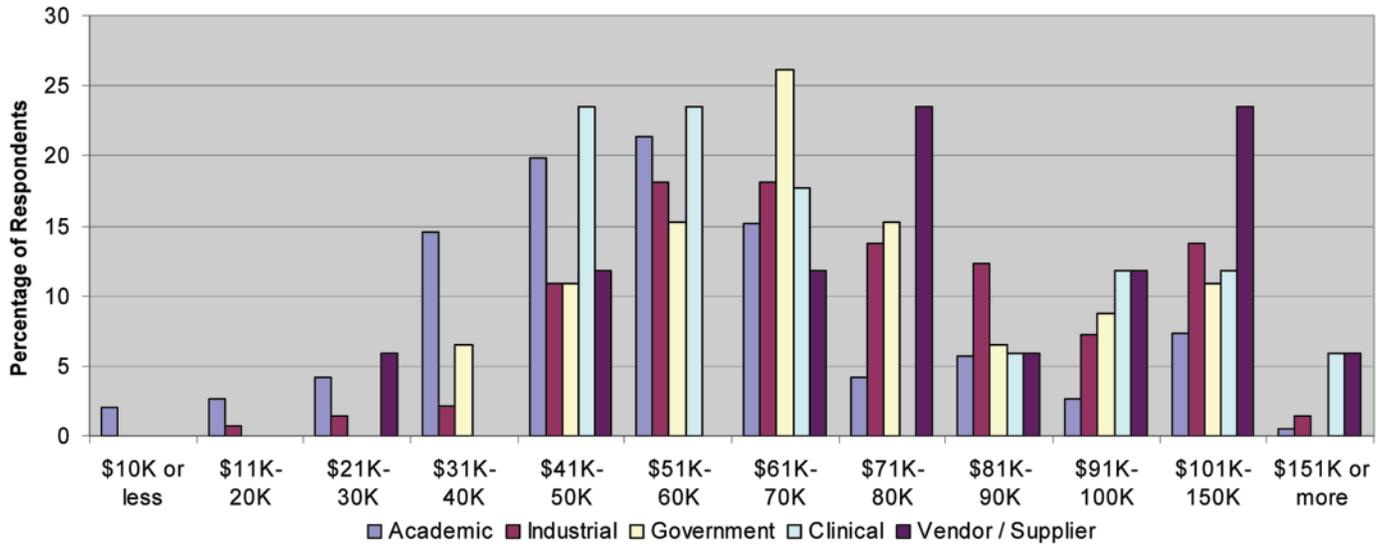
Respondents by Laboratory Type



■ Academic ■ Industrial □ Government □ Clinical ■ Vendor / Supplier

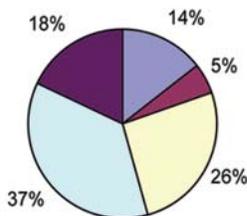
The Laboratory Type data in figures 2a and 2b reports responses to survey question 2: In which type of Institution/facility do you work? There were five choices available to the respondents and they are all presented. This analysis substantiates the strong earning opportunities in government, followed by industry and Clinical facilities. While academic salaries cut off earlier, this area still presents good earning prospects. Vendor/Supplier salaries are high, which probably correlates with the large number of management and executive level respondents to the survey.

Salary vs. Laboratory Type



■ Academic ■ Industrial □ Government □ Clinical ■ Vendor / Supplier

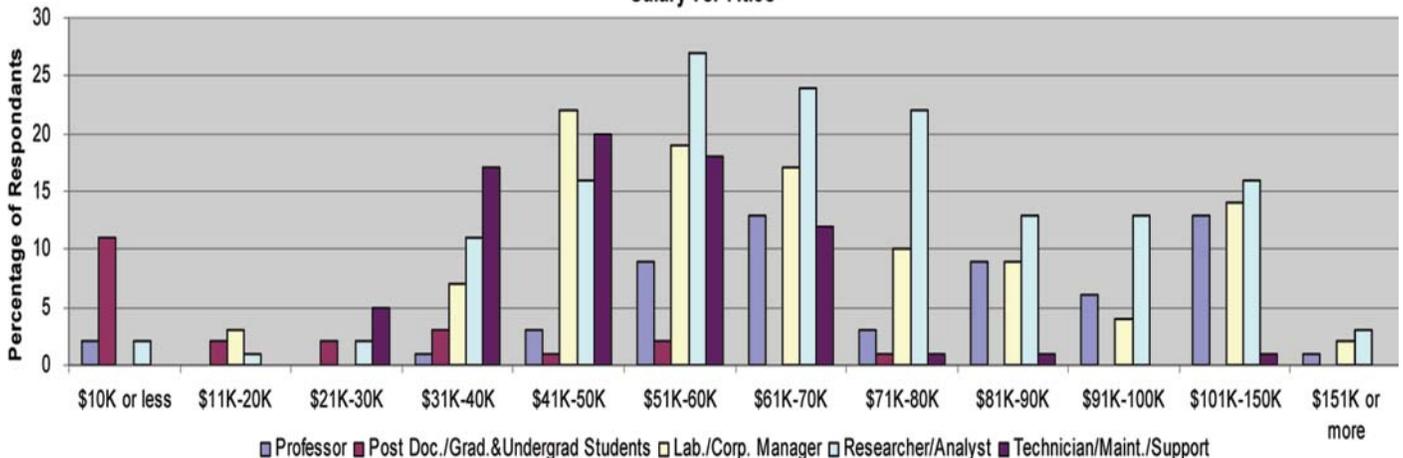
Titles of Respondents



■ Professor ■ Post Doc./Grad. & Undergrad Students
 □ Lab./Corp. Manager □ Researcher/Analyst
 ■ Technician/Maint./Support

Figure 3a and 3b report Salary vs. Title data from question 1 of the survey: Which category best describes your position or job description? There were eleven possible responses, which have been partially condensed as follows: Post Doc/Grad Students + Undergrad Students, Lab Managers + Corporate Managers, Researchers + Engineers + Analysts + Consultants, and Technicians/Technologists + Maintenance/Support. The data holds no surprises: students make the least; technicians are next; managers, analysts and professors make the most.

Salary vs. Titles



■ Professor ■ Post Doc./Grad. & Undergrad Students □ Lab./Corp. Manager □ Researcher/Analyst ■ Technician/Maint./Support

Nature of Respondent's Laboratory

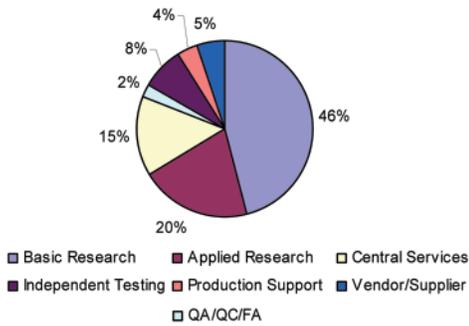
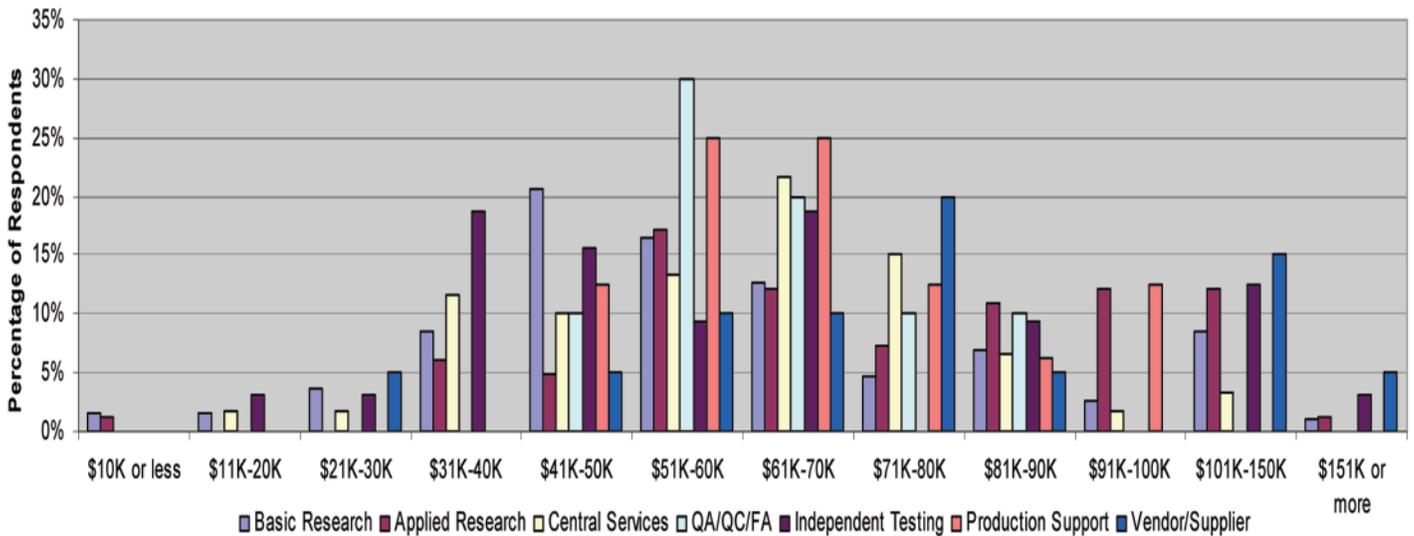


Figure 4a and b. Survey question 3 asked: Which category best describes the type of laboratory in which you work? Eight responses were possible. We combined Quality Control/Assurance + Failure Analysis. While it is tempting to draw conclusions as to which category pays more than another, the only defensible observation one can make is that salaries are not terribly sensitive to laboratory type.

Salary vs. Nature of Laboratory



Respondent's Education Level

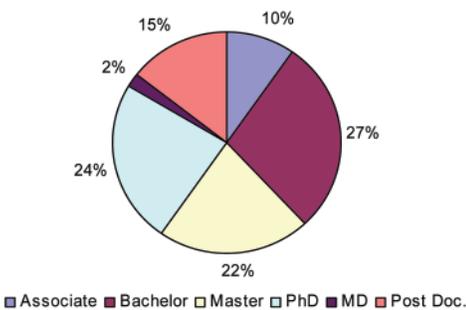
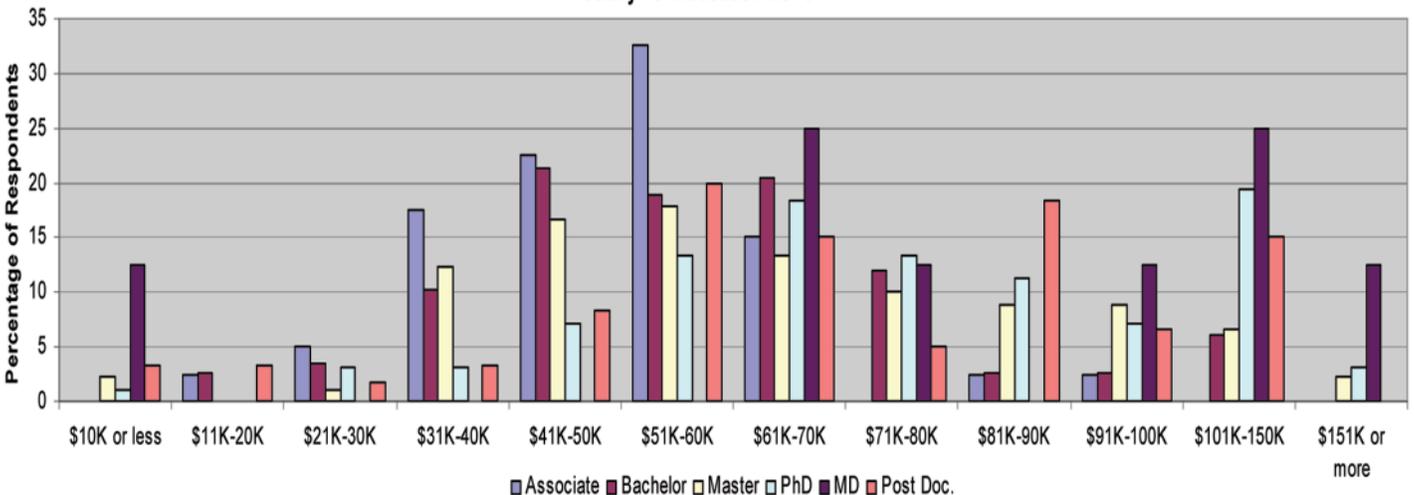
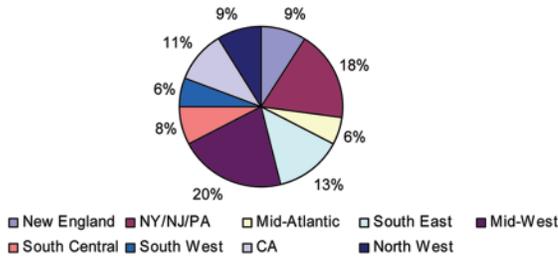


Figure 5a and b report the data received in response to survey question 5: What is your highest level of academic training? We combined High School + Associate' Degree and Post Doc + Advanced Graduate Study. There is an obvious correlation between education and salary. Your parents were right! Stay in school!

Salary vs. Education Level



Geographic Distribution of Respondents



Salary by Region

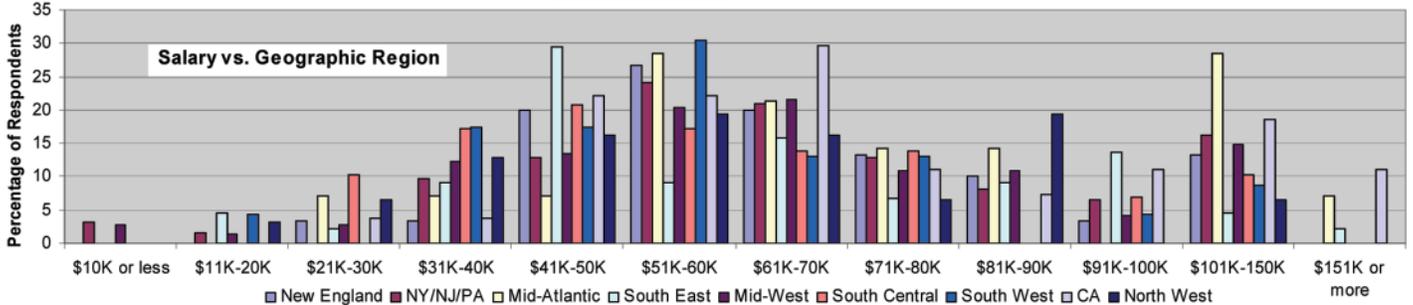
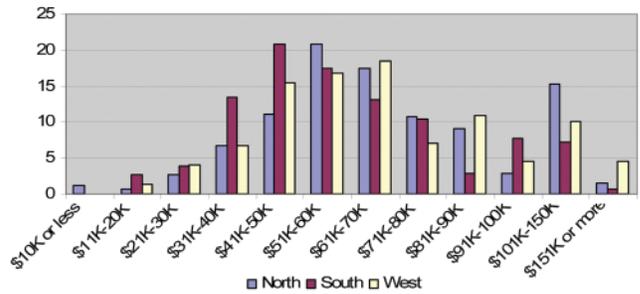
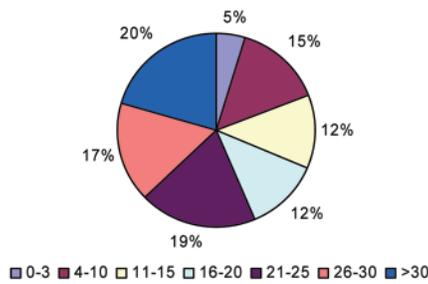


Figure 6a, 6b (large plot), and 6c (summary plot) report salary as a function of region. The regions were defined as follows: New England: MA, CT, RI, VT, NH, ME; Mid-Atlantic: DC, DE, MD, VA; South East: NC, SC, GA, TN, LA, MS, FL, AL; Midwest: MN, MI, WI, ND, SD, NE, IL, IA, OH, KY, WV; South Central: TX, OK, KS, AR, MO; South West: AZ, CO, NM, NV, UT, MT, WY; North West: WA, OR, ID and HI. Perhaps a more useful plot is shown in figure 6c that compares North vs. South vs. West. Here, we define: North: New England + NY/NJ/PA + Mid-Atlantic + Mid-West. South: South East + South Central + South West. West: CA + North West. It would appear that strong regional differences in salary have nearly vanished.

Respondent's Years of Experience



Figures 7a and 7b reports the results of question 11 in the survey: How many years of Microscopy Experience have you had? All the data is reported without condensing responses. Aside from the lower salaries paid to people just entering the field (although a few new people are commanding very respectable salaries), the data shows a fairly tightly grouped log-normal distribution (by eye) until we see the bump-up in the \$101-150K group where we can assume that respondents have attained higher paying senior laboratory and management positions. It is also noted that we are an ageing community with over 50% of the respondents reporting more than 20 years of experience.

Salary vs. Years of Experience

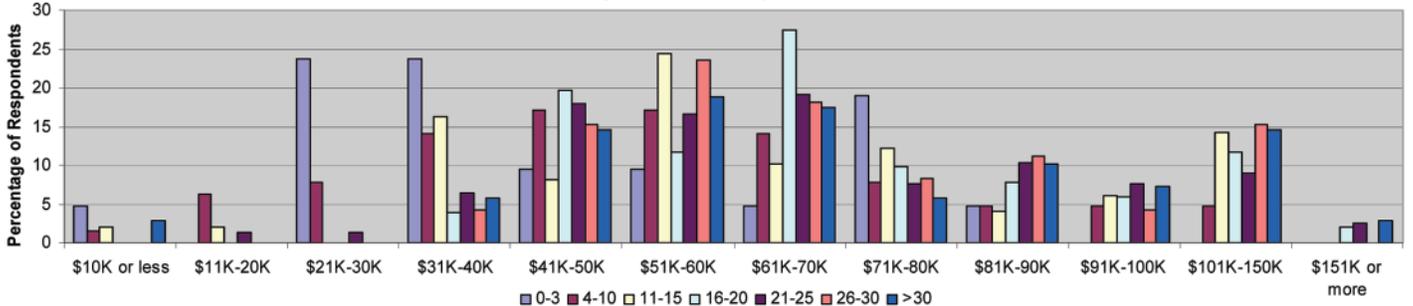


Figure 8. Despite stating earlier that we would not show any of the other survey data in this salary publication, we had a little room and couldn't resist including this. Survey question 8 asked: On which Publications or Methods do you rely on most heavily when making decisions about equipment purchases? Respondents were asked to select all that applied. Taking into account multiple selections by individual respondents, two thirds of the respondents indicated that they did their own investigations. Understandably, the use of the Microscopy Today readership list introduced bias, but both Microscopy Today and Microscopy and Microanalysis, the MSA journal, received very strong votes of confidence (42% and 28%, respectively). A quarter of the test population also relied on colleagues' input. In contradistinction, publications representing more general science populations each rated at 10% or less.

Publication/Method Relied on for Purchases

