

such public displays are requisite to maintaining one's position and to cementing it further via the contacts and opportunities chanced upon in the course of casual interaction. This is tantamount to regarding pay and status as potential determinants of each other.

The foregoing remarks are intended to suggest that Brown's formulation of the problem he sets for himself is at least inadequate. Artfully treating all the logical possibilities would doubtless involve computations more complex than a bivariate regression, which, excepting those few cases in which the results of others are discussed, is the most complicated statistical technique employed by Brown. The avoidance of multivariate methods in surveying a field that has become quite sophisticated in recent years is a serious defect. Nowhere is this oversight more disastrous than in Brown's review of occupational mobility, which relies primarily upon the calculation of mobility ratios, whose usefulness has been seriously questioned (4). Brown, for example, observes that "the class structure is evidently an important influence on the relative supplies of labour to different occupations. This means in turn that it may prove to be an important influence on relative pay" (p. 181). But Brown never proceeds to investigate that possibility. This may, in part, be due to the fact that the literature most relevant to its answer involves calculations more complex than zero-order correlation and regression. Brown is surely aware of the available material, since his citations include some to sources where this problem is directly addressed. Duncan, Featherman, and Duncan (5) find that family background factors have little impact upon sons' income and that such impact as they do have is largely transmitted via sons' educational and occupational attainments. Brown does not discuss these results in his treatment of occupational mobility, though they are considerably more relevant to the topic at hand than the intergenerational mobility tables he discusses. Since the work in which they are reported is elsewhere cited by Brown, he must have been aware of them; it is difficult to understand why someone with Brown's obvious skill and imagination should neglect structural equation models of the process of status attainment, as well as other multivariate analyses of the stratification system. Brown's discussions of the relationships of age, region, and unionization to intraoccupational differences in earnings are likewise marred by the tendency to treat variables one at

a time, a strategy that makes it impossible to assess their net effects.

Despite these difficulties, Brown's book remains informative and impressive for the wealth of material it surveys. This reviewer found the historical and comparative material on occupational pay and the discussion of discrimination particularly valuable. The book also benefits from being well written.

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#### References and Notes

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2. See, for example, K. Davis and W. Moore, *Am. Sociol. Rev.* 10, 242 (1945); W. Buckley, *ibid.* 23, 369 (1958); A. Stinchcombe, *ibid.* 28, 805 (1963). A full set of references on the functional theory would fill a book.
3. C. R. Wright and H. H. Hyman, *ibid.* 23, 284 (1958); R. W. Hodge, in *Social Stratification: Research and Theory for the 1970s*, E. O. Laumann, Ed. (Bobbs-Merrill, Indianapolis, 1970), pp. 182-206.
4. A. Tyree, *Popul. Stud.* 27, 577 (1973).
5. O. D. Duncan, D. L. Featherman, B. Duncan, *Socioeconomic Background and Achievement* (Seminar Press, New York, 1972), p. 37 ff.

### Fisheries Biology: Early Days

**Spencer Fullerton Baird and the U.S. Fish Commission.** A Study in the History of American Science. DEAN CONRAD ALLARD, JR. Arno, New York, 1978. xii, 428 pp. \$25. Biologists and Their World.

Spencer F. Baird's many-sided career as a Washington scientist placed him at the center of a carefully constructed network of friendships, alliances, and research partnerships that linked together the Smithsonian, the National Museum, the Commission of Fish and Fisheries, the Bureau of Ethnology, the Geological Survey, and other scientific bureaus. His organizing feats alone, not to mention his scientific work, made him one of the outstanding figures of 19th-century American science. The author has chosen the Fish Commission—one of Baird's creations—as the main institution to discuss and, making extensive use of letterbooks and of governmental records and reports, he has reconstructed the strategic motivations and the tactical steps that allowed Baird to take up such a key position in the growing federal scientific establishment. The result is a biography of sorts in which, as the chronological thread unwinds, a number of themes and events receive special treatment, producing the impression of a series of magnifying

lenses of different power being applied to different sections of the record. Although the author does put forward his reasons for focusing on the Fish Commission, he does not account for the relative weights he gives to different topics within the bounds of the initial choice. This may well be the consequence of that peculiar brand of cautiousness that characterizes doctoral theses—for that is what the book is: the offset reproduction of the text of a Ph.D. dissertation. The fact remains that the reader may find it puzzling that, for instance, the 1877 Halifax fisheries arbitration commission should be given the same amount of space as the scientific work of the Fish Commission. In other words, the strength of the study is its documentation, while the analytical framework is its weakness.

It follows that the book is more useful than enlightening. It provides detailed information on aspects of the politics of science in Washington in the 1870's and '80's, on the early work in marine biology, and on the federal initiatives in fish culture. The wealth of evidence and the careful reconstruction of events can provide the reader with material for consideration on matters beyond the scope of the book. For those interested in the birth of new disciplines, the study provides documentation on the intellectual and institutional aspects of the birth of marine biology. The study of the professionalization of science during the 19th century is enriched by the proof that, in certain circumstances, the formation of a professional group can be helped not by the display of acquired exclusive expertise but by the asserted need to acquire it. The book also serves as a reminder of the fact that, in a democracy, the popularization of science is important and that its most profitable form is that addressed to politicians. But what is most effectively made popular tends to be the body of received, consolidated scientific ideas. And since the public image of science affects the public image of scientists, it follows that one of the most easily understood (and therefore most acceptable) scientists for politicians is one who engages in slightly old-fashioned, easily popularizable activities. Baird, a systematist in a scientific world turning more and more toward the figure of the laboratory-bound experimental scientist, was a good example of yesterday's scientist shrewdly and effectively working for tomorrow.

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