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U.S. User Ratings of Mainframes

Datapro's 1988 edition of its annual Computer Users Survey employed questionnaires mailed to a cross-section of mainframe computer sites listed with the International Data Corporation (IDC), and to a supplementary listing provided by a small user group.

This report summarizes screened responses from 411 mainframe users. (For results of our survey of minicomputer users, see *Datapro Reports on Minicomputers.*)

Especially because our questionnaire was so comprehensive, Datapro greatly appreciates the generous cooperation of all survey respondents.

THE 1988 QUESTIONNAIRE

In multiple-part questions, we asked users to describe their system and model, configuration, technological and organizational environment, budget, and plans.

Another group of questions asked the users to rate 24 specific aspects of their computer systems. The categories rated included ease of operation, reliability of system, reliability of peripherals, maintenance service (responsiveness and effectiveness), technical support (troubleshooting, education, and documentation), manufacturer's software (operating system, compilers and assemblers, and applications programs), ease of programming, ease of con-

This report presents the results of Datapro's 1988 survey of computer users. Over 400 mainframe system users, including those of most popular mainframes, detailed their system environment and usage. They also shared their assessment of the systems and of their manufacturers' support. Used with regard to our expressed caveats, this information should be of great value to prospective users who are evaluating computer systems.

version, and overall satisfaction. Additional ratings included timeliness of hardware installation; timeliness of software installation; ease of expansion; compatibility of terminals, peripherals, and software carried over from other systems; power/energy efficiency; productivity aids; software support delivered by the vendor; and ease of keeping up with and implementing vendor changes to hardware/software.

We also asked users if they run certain software packages in the following categories: data base management systems, data management systems, application development tools, utilities, communications software, performance monitors, security systems, and system enhancement packages. Detailed user ratings of mainframe software will ▷

CHART 1. 1988 SURVEY RESPONDENTS BY INDUSTRY TYPE AND VENDOR

Industry Type	Mainframe Respondents	Percent of Respondents in Industry Type (If at least 10% of Vendor Respondents)						
		Amdahl	Honeywell Bull	IBM	NAS	NCR	Unisys	Other
Manufacturing	78 (19%)		✓	✓		✓	✓	
Government	59 (14%)	✓	✓	✓	✓	✓	✓	✓
Education	53 (13%)	✓	✓	✓	✓	✓	✓	✓
Banking/Finance/ Securities	43 (11%)			*			✓	
Retail/Wholesale	38 (9%)		✓				✓	
Insurance	37 (9%)	✓	*	✓	✓			
Health Care/ Medical	19 (6%)							✓
Public Utilities	15 (4%)	✓					*	
Service Bureaus	14 (3%)	✓				✓		
Transportation**	14 (3%)							
Construction	6 (2%)						*	

*Near miss: 9% of 1988 respondents.
**But < 9% for every vendor's user respondents.

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CHART 2. MAIN CURRENT AND PLANNED APPLICATIONS

Applications	In Use 1988		Planned For 1988-89	
	≥ 20%	≥ 10%	≥ 20%	≥ 10%
Accounting/Billing	✓			✓
Payroll/Personnel	✓			✓
Order Processing	✓			✓
Purchasing	✓			✓
Sales/Distribution	✓			✓
Manufacturing	✓			
Education		✓		
Banking		✓		
Insurance		✓		
Engineering/ Scientific		✓		
Executive Info.			✓	
Decision Support				✓
Financial Control				✓

▷ be described by individual product reports in Volume 3 of *Datapro 70*, throughout the coming year.

Finally, we asked if the computer system did what it was expected to do and if the users would recommend their computer system to others. Some of the answers were surprising.

METHODOLOGY AND SURVEY RESPONSE RATE

Survey results customarily begin with an impressive recounting of the methodology used. Typically, these descriptions bore most readers and still fail to identify explicitly any shortcomings of the survey.

Suffice it to say that Datapro went to its usual, considerable lengths to collect responses for all current mainframes, to screen out obviously biased or otherwise unsuitable responses, and to analyze the survey data impartially and accurately. New this year was computing support from Datavision Research of Princeton, New Jersey; Datavision's proprietary statistical software tools helped us tabulate and analyze the results more efficiently.

Having spared our nonstatistician readers the customary treatise on methodology, we now forthrightly offer a few *explicit* cautionary remarks. Here, then, are some grains of salt to take with this survey (and with just about any other).

CAVEATS ON USE OF SURVEY RESULTS

Datapro's annual survey, well received for many years by the data processing community, generates highly useful information. But we are concerned that potential system users, vendors, and journalists not misinterpret the survey results.

Readers considering a system acquisition can use the survey most effectively in defining *their own unique needs* and in preparing evaluation *questions* for each candidate computer system's vendor. The survey may also suggest additional systems and vendors worth investigating.

Neither the objective data reported nor the subjective user ratings, however, should be used as the primary basis for choosing or rejecting a mainframe system/model—much less a vendor. Apart from the overriding importance of the reader's own special needs, these caveats are based on the realities of this type of survey, as explained below.

Similarly, Datapro urges vendors and journalists not to exaggerate the statistical import of the ratings results reported here. As indicated, Datapro offers these study results as a useful, but not definitive, tool.

Here are key reservations to keep in mind when interpreting survey results of this type.

Sample Size. First, any compelling generalization about a system/model or its vendor would require a much more extensive random sample of the installed base. Regrettably, and despite follow-up reminder mailings of over 3,500 questionnaires, this year's survey response was significantly lower than last year's. People may have more leisure time in the summer than in late winter (our traditional survey season), but many of them chose not to work on our survey forms at the beach.

Whether reporting on objective factors (type of industry, disk memory used, etc.) or on user ratings, a smaller sample always runs the risk of not accurately representing the "population"—the entire installed base of a system/model, or the full list of a vendor's customers.

Not wishing to ignore important systems, however, Datapro cautiously reports even rather small batches of responses. Several charts and tables in this report remind the reader of the exact number of responses on which each ▷ average is based.

CHART 3. A NEW TREND ?

Acquisition Method (Average of Respondents)	1988	1987	1986
Purchase (%)	59	52	54
Rent/Lease from Mfr. (%)	18	15	14
Lease from 3rd-Party (%)	23	32	32