3. Methodology and Demographics

Methodology

Most of the information for *Corporate Color* was obtained first-hand, from end-users involved with their organization's documents. In-depth in-person interviews with managers in large-company computer printing and in-plant printing operations were conducted late in 2000. These early interviews validated our research issues, gave us guidance about who to approach within our target respondent companies, and let us know what command the respondents might have over our research issues.

Our subject is digital production color printers—printers capable of 25+ ppm. Generally speaking, production color printers are one of many production alternatives available in an organization. Where you find a production color printer, you will find other production equipment. Indeed, one of our research tasks is to understand how digital color printing fits in with the other hard-copy document alternatives available.

Avoid Graphic Arts

The document story in large organizations has many facets. Along our path from the switchboard to the respondent, we made sure to avoid graphic artists and network administrators. While such contacts may have a wealth of hands-on knowledge, sometimes they are not aware of the relationship between the organization's missions and its tactical deployment of document systems. In other words, we wanted to maximize our opportunity to learn how color production printing might help an organization meet its goals.

Our objective was to speak to those in charge of in-plant printing and centralized computer printing—two groups in the organization that, at one time, produced documents such as forms and reports—documents that were the life-blood of enterprise. The rise of network computing and the Internet as an information-access interface have changed the role of IT in document printing. To a lesser extent, increased performance and lower cost of production digital printing technology has changed the role of in-plant in producing documents. In large corporations today, it is easier to find a group dedicated to in-plant printing than dedicated to computer printing. New technology and changing business conditions have challenged the very existence of in-plant and central computing functions. Many organizations prefer to use contractors (facilities managers) or outsourcing services for a variety of printing activities.

Marketing Perspective

Generally speaking, when a production color printer is installed by a corporation, it is operated as a company resource by the in-plant print shop or the centralized computer print operation. Each group is in a position to recommend a print method for a particular job in light of turnaround requirements, run length, print cost, quality requirements, and so on. But since neither the print shop nor the computer center *generates* or launches the job, they are not the final judges about a document's value to the organization. To hear this important perspective, we included a set of calls to individuals in marketing departments. From marketing people, we wanted to learn where in-house production resources fit among their document production alternatives. Marketing people, we hoped, would help us understand the appeal of applications such as 1:1 or variable-data marketing, applications that make production color printing so compelling.

Sampling

With the intention of focusing on large organizations, we built a database of end-user contacts from:

- Previous research activities.
- Volunteers—individuals from end-user companies who contacted us by e-mail or telephone.
- Individuals who authored articles or were quoted in articles in industry periodicals.
- Members of the end-user community who were speakers at industry conferences.
- Subjects of vendor case-study write-ups.
- Press coverage in general and new-member announcements from document-related industry associations specifically.
- Listings in a published directory of computer executives.
- Companies found in the Fortune 1000 listing on *Fortune* magazine's Web site.

In cases where our sampling process provided only a company name, we asked the switchboard to connect us to the in-plant print operation, computer center, or marketing department. Once we had reached our desired contact in an in-plant or computer center, we quickly learned about monochrome and color production equipment installed. In cases where it was not obvious, the equipment installed usually guided us toward one questionnaire or another. For instance, the presence of offset equipment would indicate that we should use the in-plant questionnaire.

Figure 3-1: Research Interviews by Industry, All Contacts

	Structured Telephone Interviews	In-depth In-person Interviews	In-depth Telephone Interviews	All Contacts
Manufacturing	21	-	4	25
Transportation	7	-	-	7
Utility	13	1	2	16
Distribution	8	-	1	9
Insurance/Finance	21	5	3	29
Service	6	-	-	6
Health	9	-	-	9
Education	20	-	1	21
Government	15	3	1	19
Total	120	9	12	141

To allow us to reflect the variety of equipment in use and work done on the equipment, we did not establish quotas or sampling to target or avoid any particular vendor or technology. We interviewed quite a few people who operate monochrome computer center printers and a couple who operate offset presses. However, our approach was always to seek out production color equipment and individuals who could describe the use or potential use of production color equipment.

Multiple Contacts

We conducted formal telephone interviews with 122 respondents. Two respondents provided responses that indicated they were not taking the process seriously, and were excluded. Because the document story in a company is multi-faceted, we sought additional contacts from every respondent. In 15 cases, we were able to conduct interviews with these additional contacts. Because of this, the maximum denominator on some company-related charts (whether or not the company has production color equipment, for instance) is 105. Structured interviews were conducted between mid-January, 2001, and May 24, 2001.

Questionnaires

The in-plant and computer center questionnaires are similar. Both questionnaires have a section where we profile a single high-volume job. But the computer print version has response grids for profiling a monochrome job, which was used when the computer print group did not operate production color printers. Another difference between the questionnaires is that the in-plant group was asked to break out their work according to digital prints, offset prints, and copies, which is not an issue for most computer centers.

There is much less in common between the marketing questionnaire and the other two, mostly because the marketing group is a *customer* of printing services. Copies of the computer print and marketing questionnaires can be found in the appendix.

Additional Experts

In addition to conducting in-depth in-person preliminary interviews and structured telephone interviews, we contacted a number of other end-users—on the phone and in person—to help us round out the story of corporate production color printing. In all, we interviewed over 140 end users for this project *(Figure 3-1)*. Telephone interviews were typically 45 minutes in length. In-person interviews lasted about an hour. Structured telephone interviews were conducted with 120 individuals at 105 companies.

Demographics

More than half (59%) of the organizations we contacted employ 5,000 or more, worldwide *(Figure 3-2)*. Excluding government and educational institutions, half of our contacts work for companies included in *Fortune* magazine's list of the 1,000 largest publicly traded U.S. companies *(Figure 3-3)*.

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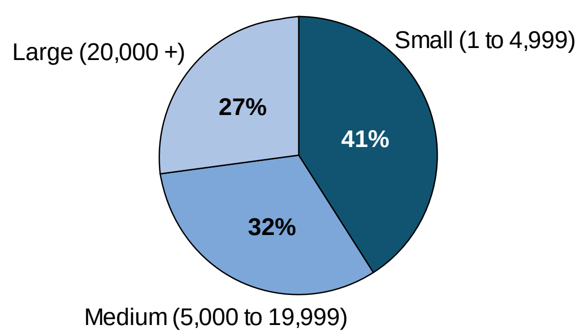
Figure 3-2: Size of Company



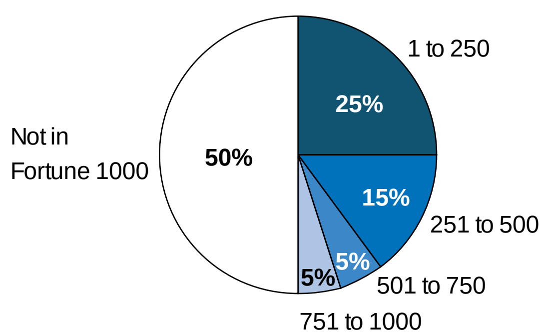
average: 19,104 employees

Number of companies: 105. Second responses from the same company excluded.

Figure 3-2: Size of Company, by Environment (detail)

Small	In-plant	Computer Print	Marketing	All Respondents
1 to 499	6%	7%	12%	8%
500 to 999	2	7	8	5
1,000 to 2,499	15	7	28	16
2,500 to 4,999	12	21	4	12
Small Subtotal	35%	43%	52%	41%
Medium				
5,000 to 9,999	19%	14%	8%	15%
10,000 to 14,999	15	18	4	13
15,000 to 19,999	4	4	4	4
Medium Subtotal	38%	36%	16%	32%
Large				
20,000 to 39,999	10%	7%	20%	11%
40,000 to 59,999	10	7		7
60,000 +	8	7	12	9
Large Subtotal	27%	21%	32%	27%
Total	100%	100%	100%	100%
Number of companies	52	28	25	105
Number of respondents	54	35	31	120
Mean company size	22,415	18,079	14,494	19,104

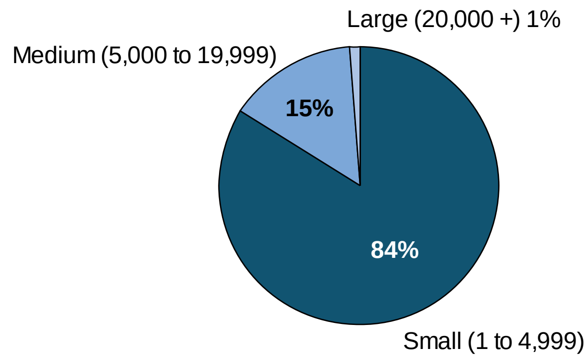
Figure 3-3: Fortune 1000 Rank



Number of companies: 74. Excludes respondents from Government and Education.

The average number of employees at a particular location we contacted is 2,284 *(Figure 3-4)*. When comparing the average location size to total employee count (21,817), we are reminded how massive these companies are. We talked to people who, day-to-day, are making production and budget decisions on behalf of very large organizations. The very size of the organizations indicates that our respondents have, to greater and lesser extents, both de facto and defined guidelines and practices to follow. By virtue of sheer buying power, such companies are attractive sales targets. But the businesses are complex, and top managers—CIOs and CFOs—often have concerns other than hands-on operating details such as document policy. We were in touch with decision makers, yes. Our contacts, in most cases, know about their organization's document policy, but are not policy setters. Another consequence of the large size of the organizations we contacted is that it is very difficult for one individual to provide a "big-picture" perspective.

Figure 3-4: Size of Location



Average: 2,284 employees

Number of respondents: 110

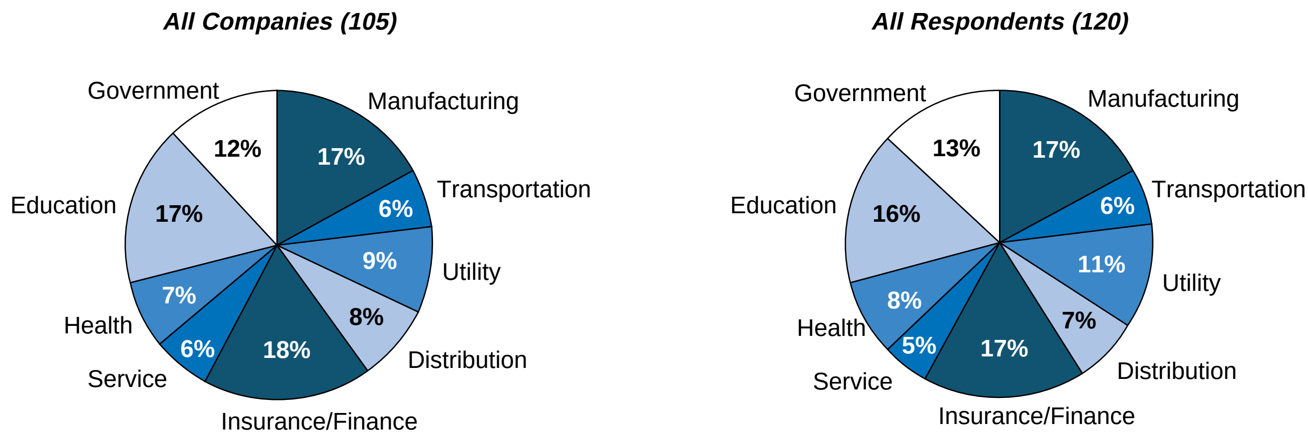
Figure 3-4: Size of Location, by Environment (detail)

	In-plant	Computer Print	Marketing	All Respondents
Small				
1 to 249	28%	24%	48%	31%
250 to 499	2	10	4	5
500 to 999	8	13	30	15
1,000 to 2,499	28	17	7	20
2,500 to 4,999	15	20	4	14
Small Subtotal	81%	84%	93%	84%
Medium				
5,000 to 9,999	15%	13%	7%	13%
10,000 to 14,999	2	-	-	1
15,000 to 19,999	2	-	-	1
Medium Subtotal	19%	13%	7%	15%
Large				
20,000 to 39,999	-	3%	-	1%
Total	100%	100%	100%	100%
Number of companies	52	28	25	105
Number of respondents	53	30	27	110
Mean location size	2,680	2,760	1,078	2,284

Figure 3-5: Workgroup Size, by Environment

	In-plant	Computer Print	Marketing	All Respondents
1 to 9	25%	11%	38%	24%
10 to 19	13	26	21	19
20 to 29	10	26	14	16
30 to 39	15	3	14	11
40 to 49	8	6	-	5
50 to 99	17	6	10	12
100 to 199	10	11	3	9
200 +	2%	11%	-	4%
Total	100%	100%	100%	100%
Number of respondents	52	35	29	116
Mean workgroup size	44	65	22	45

Figure 3-6: Industries Represented by Respondents

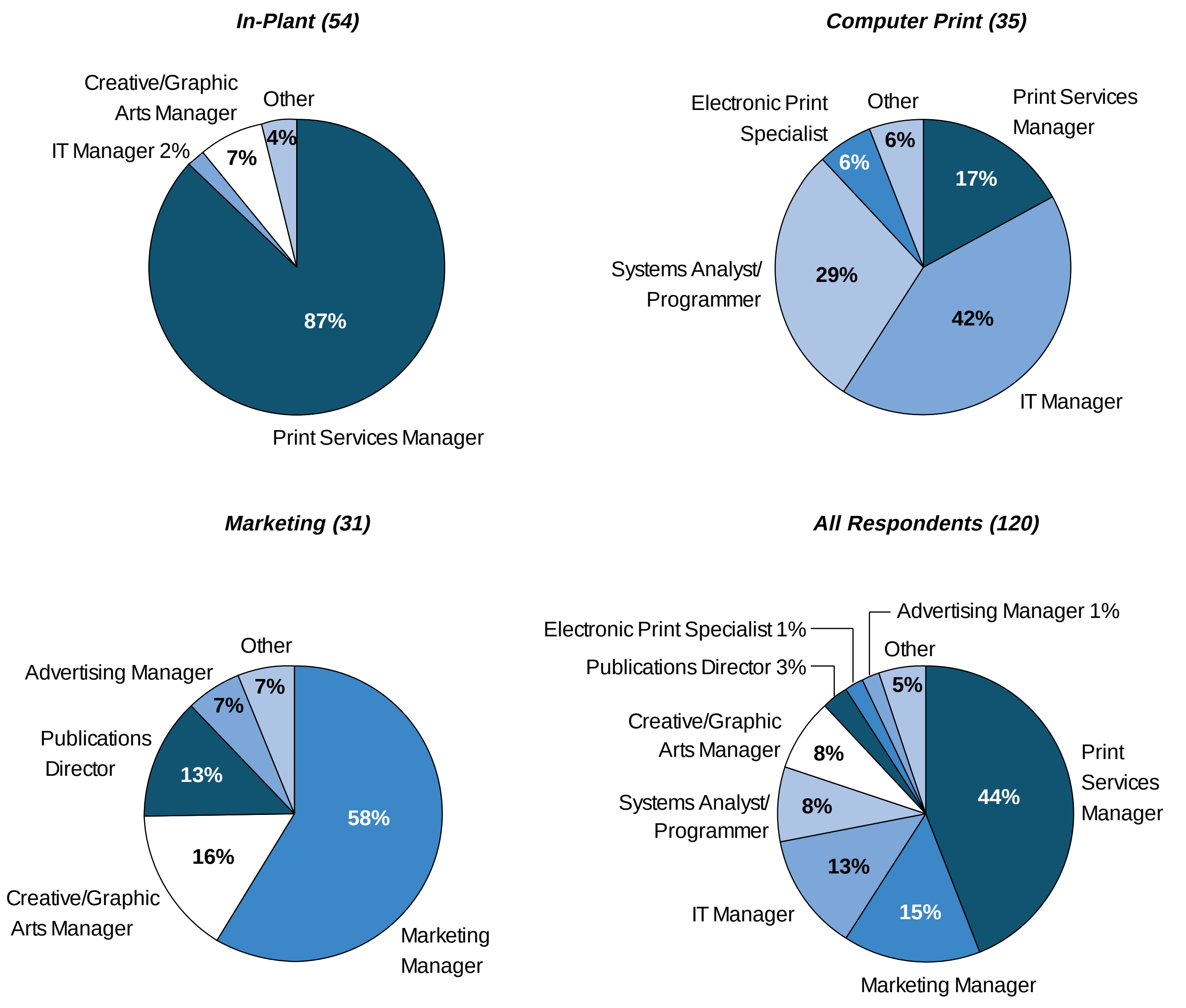


In staff count, computer print organizations are larger than in-plant operations by a considerable margin *(Figure 3-5)*. Four respondents work in data centers employing 200 or more individuals, which pulls the average department staff size for the computer-print group way up. The four include a large university, the central computing operation for a financial services giant, the data center for a conglomerate in the hospitality service industry, and a large insurance company.

We spread our interviews across a range of industries, trying to avoid a concentration in any one industry. We heard from 19 companies (18%) and 21 individuals in the insurance and finance industries *(Figure 3-6)*.

(continued on page 16)

Figure 3-7: Title of Respondent, by Environment



As one might expect, most contacts working in in-plant operations have titles which can be characterized as “Print Services Manager.” *(Figure 3-7)* Included in this are print and copy shop managers, of course, but also people with titles like “Document Services Manager” and “Director of Graphic Communications Services.” In computer departments, we spoke with IT Managers and Systems Analysts/Programmers, mostly. Marketing Managers and Graphic Arts or Creative Services Managers were the most frequent marketing department contributors.

The listing of work group names demonstrates that some computer-department respondents work in print-related departments *(Figure 3-8)*.

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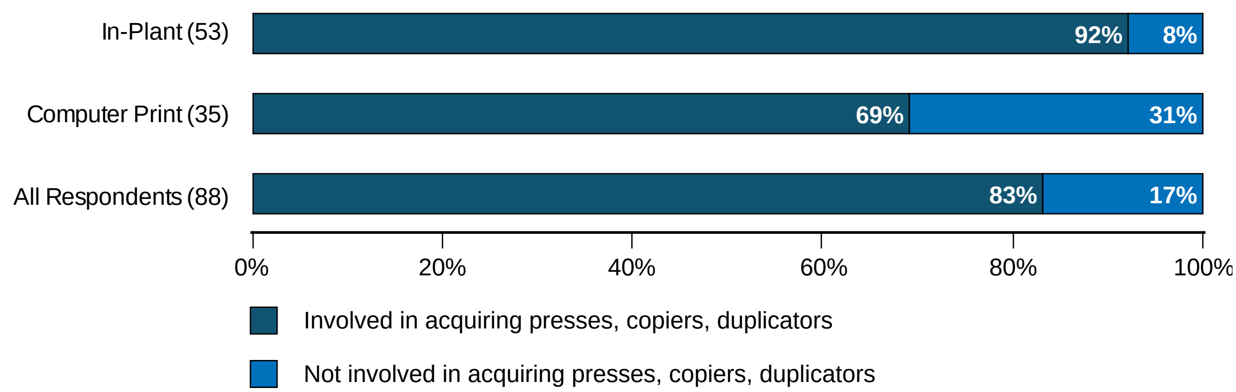
Figure 3-8: Work Group Name, by Environment

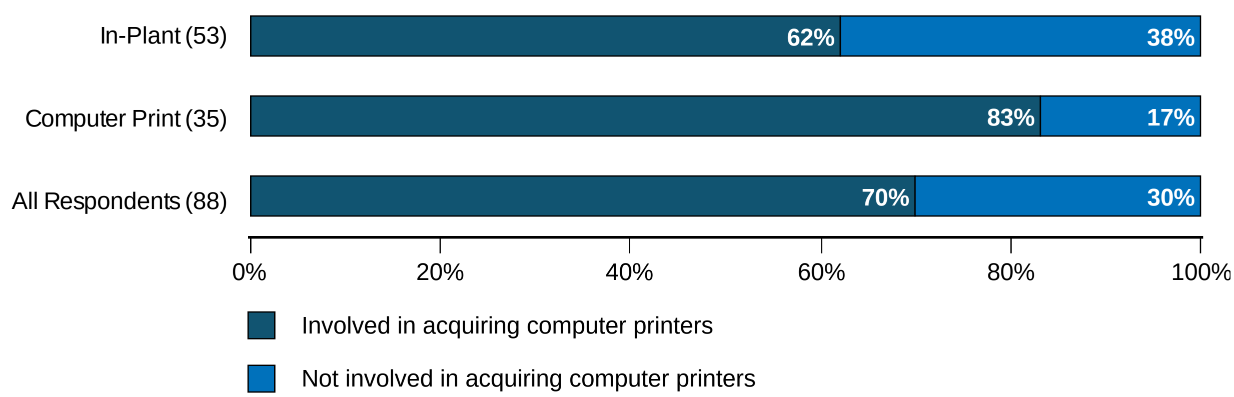
Printing	In-plant	Computer Print	Marketing	All Respondents
Printing Services	42%	26%		26%
Creative/Graphic Arts	17	-	30%	15
Document Services	11	6		7
Printing/Mailing Services	9	3		5
Reprographics/Copy Center	9	-		4
Printing Subtotal	88%	35%	30%	57%
Information Technology				
Services		17%		5%
Computer Operations		14		4
Systems		11		3
Data Center		9		3
IT unspecified		14		4
IT Subtotal		65%		19%
Marketing				
Marketing	2%		63%	17%
Public Relations	-		7	2
Marketing Subtotal	2%		70%	19%
Administrative				
Admin/Business Services	6%			3%
Purchasing	4			2
Administrative Subtotal	10%			5%
Grand Total	100%	100%	100%	100%
Number of respondents	53	35	30	118

Figure 3-9: Involvement in Acquiring Presses, Copiers, and Duplicators—In-Plant and Computer Print



Note: Includes only in-plant and computer print respondents.

Figure 3-10: Involvement in Acquiring Computer Printers—In-Plant and Computer Print



Note: Includes only in-plant and computer print respondents.

Only a few respondents are *not* involved in purchase decisions regarding printer hardware that their departments operate *(Figures 3-9 and 3-10)*.

Reflecting the variety that one sees as a free-lance internal service organization, in-plant operations seek outside vendors of print services more often than computer print departments do *(Figure 3-11)*.

Figure 3-11: Involvement in Acquiring Outside Printing Services, by Environment