

# **2003 PROJECT MANAGEMENT SURVEY**

May 1, 2003

SPONSORED AND CONDUCTED BY:

Birnberg & Associates  
1227 West Wrightwood Avenue  
Chicago, IL 60614-1455  
Phone: (312) 664-2300  
Fax: (773) 525-0444  
© Birnberg & Associates, 2003

**SPECIAL SUPPLEMENT TO "THE PROJECT MANAGER", Spring 2003**

**\$95.00**

## **TABLE OF CONTENTS**

<b>SECTION</b>	<b>PAGE</b>
<b>Introduction</b>	5
<b>Executive Summary</b>	6
<b>Sample</b>	7
<b>The Project Manager</b>	11
<b>Salary Data</b>	15
<b>Project Manager Training and Responsibilities</b>	18
<b>Additional Findings</b>	20
<b>Project Management Problems</b>	23
<b>Year to Year Comparisons</b>	24
<b>Survey Questionnaire</b>	25

## LIST OF TABLES

<b>TABLE</b>		<b>PAGE</b>
1	<b>Total Staff Size</b>	7
2	<b>Total Technical Staff Size</b>	7
3	<b>Services Offered In House</b>	8
4	<b>Primary Business</b>	8
5	<b>Geographic Area of Practice</b>	9
6	<b>Are Your Projects Managed by an Individual With The Title of Project Manager?</b>	9
7	<b>Number of Owners or Principals in Firm</b>	10
8	<b>How Many Individuals Are Acting As Project Managers In Your Firm?</b>	11
9	<b>How Many PM's Have Left In The Past Year For Any Reason?</b>	12
10	<b>How Many Owners or Principals Are Currently Acting As Project Managers?</b>	12
11	<b>Years of Professional Experience of Non-principal Project Managers</b>	13
12	<b>Number of Project Managed</b>	14
13	<b>Average Age of Project Managers</b>	14
14	<b>Average Salary of Non-principal Project Managers</b>	15
15	<b>Salary of Lowest Paid Non-principal Project Managers</b>	16
16	<b>Salary of Highest Paid Non-principal Project Managers</b>	17
17	<b>Staff Training</b>	18
18	<b>Mentoring Programs</b>	18
19	<b>Project Manager Responsibilities</b>	19

20	<b>Computer Access</b>	20
21	<b>Timesheets</b>	21
22	<b>Project Status Reports</b>	21
23	<b>Other Findings</b>	22
24	<b>Significant Project Management Problems</b>	23
25	<b>Year-to-Year Comparisons</b>	24

## INTRODUCTION

The Association for Project Managers Mission Statement: *To promote project management excellence in the design and construction industry through knowledge sharing, education and quality management.*

This survey is the tenth in an annual analysis of the project manager's role, salary, responsibilities, and other activities affecting their performance. In all cases, percentages shown are of those responding to the question, not the total sample. Input on these results and suggestions for additional questions or areas of study is welcome. We wish to thank the 38 member firms that participated in this study.

## EXECUTIVE SUMMARY

The impact of a slowing economy is evident in the findings of the 2003 Project Management Survey conducted by the Association for Project Managers (APM). Since the last survey, published in 2001, the construction economy has performed better than the declining economy as a whole. However, as this survey is published (May 2003), many industry experts are forecasting a continued slide in the construction industry that is unlikely to turn around quickly.

According to the APM survey of 38 member design, construction, and owner/client organizations, turnover in the ranks of project managers has plummeted with 54.5% of participating firms reporting any PM's leaving in the past year. In 2001, this figure was 90.5%. This drop is likely due to the lack of other employment opportunities. Salaries have shown no rise in the two years since the 2001 study. The median salary for project managers participating in the 2003 survey remained steady at \$65,000.

Project managers are also troubled by a variety of problems in their efforts to undertake their important responsibilities. Table 1 shows a listing of the key problems identified by PM's. The percentage shown is the number of respondents who noted this as a significant problem.

TABLE 1

### SIGNIFICANT PROJECT MANAGEMENT PROBLEMS

<u>PROBLEM</u>	<u>PERCENT OF FIRMS</u>
1. Tracking/controlling work	26.32
2. Communication issues	21.05
Need to standardize/structure PM program	21.05
Time management	21.05
5. Staff and PM knowledge/experience	18.42
6. Staffing issues (insufficient number to do work)	15.79
7. Scope creep/change orders	10.53
8. Senior manager meddling	7.89
Insufficient fees (designers)	7.89

The survey also tabulated a wide variety of other data. For example, the median number of project managers found in responding firms was 8, the median number of years of professional experience for project managers was 10 years, and the median age of participants was 40. The age range of project managers was from 30 to 55 years old. Staff training was extraordinarily insufficient with firms spending only 1% of total revenues on this vital activity in the past year. A target of 3-5% is suggested by many experts to maintain an organization's quality, standards, and performance.

## SAMPLE

**Table 1** offers a detailed breakdown by total staff size of all participating firms. (Number in parenthesis refers to line item on survey questionnaire-see the Appendix).

**TABLE 1**

### TOTAL STAFF SIZE (1d)

<u>Range</u>	<u>Frequency</u>	<u>Percent</u>
Below 25	16	42.11
25-74	11	28.95
75-199	3	7.90
200 +	<u>8</u>	<u>21.05</u>
	38	100.00

\*variance due to rounding

The mean total staff size for the entire sample was 87.0 people and the median was 37.5 people. The range was from 2 to 800.

**Table 2** presents a breakdown of the total number of technical staff found in participating firms.

**TABLE 2**

### TOTAL TECHNICAL STAFF SIZE (1a)

<u>Range</u>	<u>Frequency</u>	<u>Percent</u>
Below 25	18	47.37
25-74	9	23.68
75-199	8	21.05
200 +	<u>3</u>	<u>7.90</u>
	38	100.00*

The mean technical staff size was 62.4 people and the median was 29.0 people. Technical staffs ranged from 1 to 800.

**Table 3** shows the survey participants by primary disciplines offered. Clearly, architects and engineers dominate the sample.

**TABLE 3**  
**SERVICES OFFERED IN HOUSE (2)**

<u>Discipline</u>	<u>Frequency</u>	<u>Percent</u>
Architecture	12	32.43
Engineering	14	37.84
Owners	0	0.00
Contracting	3	8.11
Other	2	5.41
Architecture/Engineering	<u>6</u>	<u>16.22</u>
	37	100.00*

Missing = 1

\* Percent of these answering question

\*\*Variance due to rounding

**Table 4** shows the primary business of responding organizations. There is obviously some inconsistency between this data and the services listing shown in Table 3. We did not attempt to reconcile these two items.

**TABLE 4**  
**PRIMARY BUSINESS (3)**

<u>Business</u>	<u>Frequency</u>	<u>Percent</u>
Private Practice Architect or Engineer	24	63.16
Private Sector Client/Owner	1	2.63
Public Sector Client/Owner	8	21.05
Contractor or Subcontractor	3	7.89
Other	<u>2</u>	<u>5.26</u>
	38	100.00*

\* Variance due to rounding **Table 5** lists the primary geographic area of business. If no one region predominated than "All U.S." was noted.

**TABLE 5**

**GEOGRAPHIC AREA OF PRACTICE (4)**

<u>Region</u>	<u>Frequency</u>	<u>Percent*</u>
All U.S.	6	15.79
Canada	0	0.00
Northwest	0	0.00
South	0	0.00
Midwest	12	31.58
Southwest	2	5.26
Mountain	0	0.00
West	1	2.63
Northeast	16	42.11
Other	<u>1</u>	<u>2.63</u>
	38	100.00*

Participants were asked to note the number of locations in which they maintained permanent operations. The mean number was 6.31 locations and the median was 6.0 locations. Twenty (of 38) had only one location (range of 1 to 7).

Responding firms have vastly different definitions of the role of a project manager. Most firms claim however, that many or all of their jobs are managed by a project manager. **Table 6** provides evidence of this.

**TABLE 6**

**ARE YOUR PROJECTS MANAGED BY AN INDIVIDUAL WITH THE TITLE OF PROJECT MANAGER? (6)**

	<u>Frequency</u>	<u>Percent</u>
Yes	31	83.78
No	<u>6</u>	<u>16.22</u>
	37	100.00

As reflected by the relatively small size of responding firms, most have only a few owners or principals. **Table 7** shows the number of owners or principals in responding firms.

**TABLE 7**  
**NUMBER OF OWNERS OR PRINCIPALS IN FIRM (10)**  
 (Design Firms Only)

<u>Number of Owners or Principals</u>	<u>Frequency</u>	<u>Percent*</u>
1	10	32.26
2	4	12.90
3	4	12.90
4	0	0.00
5	2	6.45
6	2	6.45
7 or more	<u>9</u>	<u>29.03</u>
	31	100.00**

\*Percent of those responding to question

\*\*Variance due to rounding.

As can be seen from the data in **Table 7**, about one-third of responding design firms have four or fewer owners or principals. Their need for effective project management would seem self-evident as management of both projects and the firm would be a prohibitive time burden. The mean number of principals was 5.6 while the median was 3.0 (range was 1 to 80).

## THE PROJECT MANAGER

There is no uniform definition of the role of a project manager. Later in this survey a listing of the key PM responsibilities will be provided. This list will further define the activities of PM's. **Table 8** summarizes survey findings as to the number of project managers in responding firms.

**TABLE 8**

### HOW MANY INDIVIDUALS ARE ACTING AS PROJECT MANAGERS IN YOUR FIRM? (8)

<u>Number</u>	<u>Frequency</u>	<u>Percent*</u>
1	1	2.78
2	5	13.89
3	2	5.56
4	2	5.56
5	5	13.89
6+	<u>21</u>	<u>58.33</u>
	36	100.00**

Missing = 2

\*Percent of those responding to question

\*\* Variance due to rounding

The mean number of project managers was 17.64 and the median was 8.0 (range was 1 to 80).

Finding capable project managers remains a vexing problem for some firms (Question 12). Two-thirds (66.67%) of responding firms reported difficulty in hiring managers (24 of 36). Only 31.0% (11 of 36) reported difficulty in retaining project managers (Question 13).

Turnover in the project management ranks is another significant problem with 54.5% of firms answering the question suffered some loss in the ranks of these key individuals in the past year (19 of 21). **Table 9** highlights this issue.

**TABLE 9**  
**HOW MANY PM'S HAVE LEFT IN THE PAST YEAR FOR ANY REASON? (9)**

<u>Number</u>	<u>Frequency</u>	<u>Percent*</u>
0	15	45.45
1	9	27.27
2	5	15.15
3 or more	<u>4</u>	<u>12.12</u>
	33	100.00**

Missing =5

\*Percent of those answering question

\*\* Variance due to rounding

The mean number of project managers leaving in the past year was 1.30 (slightly less than 4 on average). The median was 1. In design firms, principals often assume project management responsibilities. For small businesses this is necessary because of the lack of sufficient staff to assume the role of project manager. In other cases, it is the principal's/owner's preference to undertake project management in addition to their other firm management and marketing responsibilities.

**Table 10** highlights the role of owners or principals serving as project managers.

**TABLE 10**  
**HOW MANY OWNERS OR PRINCIPALS ARE CURRENTLY ACTING AS PROJECT MANAGERS? (11)**  
(Design Firms Only)

<u>Number</u>	<u>Frequency</u>	<u>Percent *</u>
1	6	25.00
2	5	20.83
3	2	8.33
4 or more	<u>11</u>	<u>45.83</u>
	24	100.00

\*Percent of those answering question

\*\* Variance due to rounding

The mean number of principals acting as project managers for the entire sample was 3.54 and the median was 2.0.

Project managers tend to be among the most highly experienced individuals in design firms. **Table 11** shows the years of professional experience for non-principal project managers in responding firms.

**TABLE 11**  
**YEARS OF PROFESSIONAL EXPERIENCE**  
**OF NON-PRINCIPAL PROJECT MANAGERS (20)**

<u>Years</u>	<u>Frequency</u>	<u>Percent*</u>
5 or less	1	2.86
6 - 10	17	45.57
11 - 15	11	31.43
16 - 20	6	17.14
	35	100.00**

Missing = 3

\*Percent of those responding to question

The mean number of years of professional experience for project managers in this sample was 12.22 and the median was 10. The range was from 5 to 20 years.

**Table 12** shows the number of projects managed by PMs. The mean was 6.77 projects, the median 5.0 projects, and the range was 1.2 to 50.

**TABLE 12**

**NUMBER OF PROJECTS MANAGED (14)**

<u>Number of Projects</u>	<u>Frequency</u>	<u>Percent *</u>
1.2	2	6.06
2	3	9.09
3	7	21.21
4	2	6.06
5	3	9.09
6	3	9.09
7+	<u>13</u>	<u>39.39</u>
	33	100.00

Missing = 5

\*Percent of those responding to question

\*\* Variance due to rounding

**Table 13** shows ages of project managers. The mean age is 40.25 years, the median is 40.0 years, and the range is from 30 to 55 years.

**TABLE 13**

**AVERAGE AGE OF PROJECT MANAGERS (21)**

<u>Age</u>	<u>Frequency</u>	<u>Percent*</u>
35 or less	6	16.67
36 to 45	26	72.22
46 and up	<u>4</u>	<u>11.11</u>
	36	100.00

Missing = 2

\*Percent of those answering question

## SALARY DATA

Salaries of project managers vary greatly depending on office location, actual responsibilities, experience and many other factors. In many organizations, project managers are the second highest paid individuals after the owners/principals and senior managers. Note that salary surveys highly subjective. The data presented in this section should be viewed as a sampling from a limited selection of firms.

**Table 14** shows the average salaries of non-principal project managers by ranges.

**TABLE 14**  
**AVERAGE SALARY OF NON-OWNER/PRINCIPAL**  
**PROJECT MANAGERS (19)**

<u>Range</u>	<u>Frequency</u>	<u>Percent*</u>
\$40.0 K- \$49.9 K**	3	11.54
\$50.0 K- \$59.9 K	8	30.77
\$60.0 K- \$69.9 K	5	19.23
\$70.0 K- up	<u>10</u>	<u>38.46</u>
	26	100.00

Missing = 12

\*Percent of those responding to question

\*\*K means thousands.

The mean salary for non-owner/principal project managers was \$60,915 and the median was \$65,000. The range was from \$40,000 to \$100,000.

The survey questionnaire also asked respondents to provide data on both the lowest and highest paid non-owner/principal project managers. Obviously, for organizations with only one or two PM's the data reported would cover all individuals in this position.

**Table 15** presents data for the lowest paid project manager in each responding firm. The salaries shown for the seven individuals earning \$40,000 may indicate that these people are not full-charge project managers. Those in the upper reaches may have broader responsibilities than the typical PM.

**Table 16** shows data for the highest paid non-principal project manager. The same cautions as noted above apply to this data.

**TABLE 15**  
**SALARY OF LOWEST PAID NON-PRINCIPAL  
PROJECT MANAGER (17)**

<u>Salary*</u>	<u>Frequency</u>	<u>Percent**</u>
40 or less	8	25.81
41 to 45	8	25.81
46 to 50	4	12.90
51 to 55	2	6.45
56 or more	<u>9</u>	<u>29.03</u>
	31	100.00

Missing =7

\*in thousands of dollars per year

\*\*Percent of those responding to question

The mean salary of the lowest paid PM was \$49,310 and the median was \$47,500. The range was from \$25,000 to \$85,000.

**TABLE 16**

**SALARY OF HIGHEST PAID NON-OWNER/PRINCIPAL  
PROJECT MANAGER (18)**

<u>Base Salary*</u>	<u>Frequency</u>	<u>Percent**</u>
40 or less	0	0.00
41 to 50	2	6.90
51 to 60	2	6.90
61 to 70	8	27.59
71 to 80	7	24.14
81 to 90	3	10.34
91 to 100	4	13.79
101 or more	<u>3</u>	<u>10.34</u>
	29	100.00

Missing =9

\*in thousands of dollars

\*\*Percent of those responding to question

The mean salary of the highest paid project manager was \$78,155 and the median was \$75,000. The range was from \$40,000 to \$200,000.

## PROJECT MANAGER TRAINING AND RESPONSIBILITIES

The effectiveness of the project manager can strongly impact project profitability. This section discusses both PM training and provides a specific breakdown of responsibilities. **Table 17** provides data on the percentage of annual total revenues spent by firms on staff training in 2003. Significantly, 13 of the 38 participating firms (34%) had no documented/recorded training expenditures during the year, or did not answer the question. The mean percentage of revenues spent on training was 1.97%. The median was 1.00%.

**TABLE 17**

### STAFF TRAINING (15)

<u>Percent of Total Revenues</u>	<u>Frequency*</u>	<u>Percent of Firms**</u>
.5	1	4.00
1.00	12	48.00
2.00	4	16.00
3.00/3.40	1	4.00
4.00	1	4.00
5.00 or more	<u>6</u>	<u>24.00</u>
	25	100.00

\*Zero or no data provided = 13

\*\*Percent of those responding to question

**Table 18** provides data on project manager mentoring programs.

**TABLE 18**

### MENTORING PROGRAMS (23)

	<u>Frequency</u>	<u>Percent*</u>
Yes	10	27.78
No	<u>26</u>	<u>72.22</u>
	36	100.00

Missing = 2

\*Percent of those responding to question

**Table 19** lists various project manager responsibilities and the number and percent of firms where the activity is part of the PM's job.

**TABLE 19**

**PROJECT MANAGER RESPONSIBILITIES (26)**

<u>Responsibility</u>	<u>Number*</u>	<u>Percent of Respondents</u>
1. Client Meetings/Contact (22)	34	89.47
1. Project Team Meetings (21)	34	89.47
3. Change Order Management (13)	32	84.21
3. Scope Determination (4)	32	84.21
5. Consultants Meetings/Contact (23)	31	81.58
6. Quality Control (checking) (12)	29	76.32
6. Project Fee Budget Preparation (5)	29	76.32
6. Project Status Reports Preparation or Review (15)	29	76.32
6. Specification Preparation/Review (26)	29	76.32
10. Personnel Planning (24)	28	73.68
10. Developing a Project Checklist (1)	28	73.68
12. Selection of Consultants (6)	27	71.05
12. Selection of Project Team Members (14)	27	71.05
14. Billing Preparation/Review and/or Collection (18)	26	68.42
15. Proposal Preparation (3)	25	65.79
15. Quality Assurance (prevention) (11)	25	65.79
15. Construction Administration Management (29)	25	65.79
18. Project Close Out/Evaluation (32)	24	63.16
18. On-site Observation (25)	24	63.16
20. Negotiating Designer/Consultant Contracts (8)	23	60.53
21. Payment Application Review and Processing (31)	22	57.89
21. Submittal Review and Processing (30)	22	57.89
23. Consultant Expense Review or Approval (17)	21	55.26
23. Time Card Approval/Review (20)	21	55.26
25. Negotiating Designer/Owner Contracts (7)	20	52.63
25. Marketing (2)	20	52.63
27. Program Preparation (10)	19	50.00
27. Construction Cost Estimating (27)	19	50.00

**Table 19 continued**

29.	Project Follow-up/Post Occupancy Evaluation (33)	17	44.74
30.	Vendor Expense Review or Approval (16)	15	39.47
30.	Construction Cost Control (28)	15	39.47
32.	Partnering Process Participation (9)	12	31.58
33.	Site Selection (34)	7	18.42
34.	Land Acquisition (35)	5	13.16
35.	Financing Negotiation (36)	3	7.89
36.	Other (19)	0	0.00

\*Total of 38 respondents

**ADDITIONAL FINDINGS**

**Table 20** shows the percent of project managers with a computer terminal on their desk.

**TABLE 20**  
**COMPUTER ACCESS (22)**

	<u>Frequency</u>	<u>Percent</u>
Yes	37	100.00
No	<u>0</u>	<u>0.00</u>
	37	100.00

Missing = 1

Tables 21 and 22 present findings on two administrative issues.

**TABLE 21**  
**TIMESHEETS (24)**

<u>Period</u>	<u>Frequency</u>	<u>Percent*</u>
Daily	1	2.79
Weekly	28	75.68
Biweekly	6	16.22
Monthly	1	2.70
Semi monthly	1	2.70
Other	<u>0</u>	<u>0.00</u>
	37	100.00

Missing = 1

Percent of those answering question

\*\* Variance due to rounding

**TABLE 22**  
**PROJECT STATUS REPORTS (25)**

<u>Period</u>	<u>Frequency</u>	<u>Percent*</u>
Daily	2	5.41
Weekly	13	35.14
Biweekly	5	13.51
Semi monthly	3	8.11
Other	<u>14</u>	<u>37.84</u>
	37	100.00**

Missing = 1

\*Percent of those answering question

\*\*Variance due to rounding

**Table 23** highlights a variety of other information collected.

**TABLE 23**  
**OTHER FINDINGS**

<u>Item</u>	<u>Mean</u>	<u>Results</u>	<u>Median</u>
1. Number of project managers to total staff. (1d/8)	5.14		4.17
2. Number of project managers to number of technical staff. (1a/8)	4.24		3.50
3. Number of project managers to number of principals. (8/10)	2.08		1.69
4. Number of total staff to number of principals. (1d/10)	11.75		9.17
5. Number of technical staff to number of principals. (1a/10)	9.74		8.00

The survey did find a general correlation between total staff and project manager salaries. Larger firms tended to pay PM's more. No correlation was found between the amount spent on training and turnover, training budget and firm size or between firm size and the average years of experience of project managers.

## PROJECT MANAGEMENT PROBLEMS

Every firm has its own project management problems. The survey questionnaire asked for a list of the two most significant problems affecting respondents' firms. Dozens of items were listed and some were unclear as to the exact nature of the problem. But, there were a number of problems listed repeatedly. Standing out were the very high workloads of PM's, and the lack of authority commensurate with responsibilities.

With multiple answers, the total number of mentions shown in **Table 24** will be more than the total number of respondents. The percentages shown are percent of total respondents mentioning this item.

**TABLE 24**

### SIGNIFICANT PROJECT MANAGEMENT PROBLEMS (27)

<u>Problems</u>	<u>Number of Mentions*</u>	<u>Percent</u>
1. Tracking & Controlling Work.	10	26.32
2. Communication Issues	8	21.05
2. Need to Standardize/Structure PM Program	8	21.05
2. Time Management	8	21.05
5. Staff and Project Manager Knowledge/Experience	7	18.42
6. Staffing Issues (insufficient)	6	15.79
7. Scope Creep/Change Orders	4	10.53
8. Senior Manager Meddling	3	7.89
8. Insufficient Fees (designers)	3	7.89
10. Delegation	2	5.26
11. Collecting Receivables	1	2.63
12. Authority = Responsibility	1	2.63
13. Scheduling	1	2.63
14. Need for Business Skills	1	2.63
15. Low Project Profitability	1	2.63
16. Regulatory Agencies	1	2.63

\* of 38 participants

## YEAR-TO-YEAR COMPARISONS

This year's survey is the tenth in a series of annual reports. Some selected results are shown in **Table 25**.

**TABLE 25**

<u>Item</u>	<u>2003</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>	<u>1993</u>
1. Is it difficult to hire (and/or keep) project managers?*	66.7%	65.7%	73.0%	78.4%	69.2%	66.1%	48.2%	41.3%	22.0%
2. Have any project managers left in the past year? (yes)	54.5%	90.5%	84.0%	61.5%	47.6%	47.7%	48.3%	61.8%	43.2%
3. Median number of years of experience of project managers	10.0 yrs.	13.5 yrs.	13.0 yrs.	12.0 yrs.	12.5 yrs.	11.75 yrs.	12.0 yrs.	10.0 yrs.	12.0 yrs.
4. Average age of project managers**	40.25 yrs.	41.9 yrs	40.4 yrs	40.2 yrs	40.2 yrs	38.4 yrs			
5. Average salary of lowest paid non-principal/owner project manager (median values shown)	\$47,500	\$50,000	\$50,000	\$42,000	\$40,000	\$40,000	\$43,000	\$40,000	\$40,000
6. Average salary of highest paid non-principal/owner project manager (median values shown)	\$75,000	\$80,000	\$75,000	\$61,000	\$68,000	\$57,500	\$60,000	\$60,000	\$53,000
7. Average salary of non-principal /owner project managers (median values shown)***	\$65,000	\$65,000	\$65,000	\$50,000	\$53,000	\$50,000	\$50,000		
8. Percentage of revenues spent on training (median values shown)	1.0%	2.0%	1.0%	2.0%	1.0%	1.0%	1.0%	1.25%	2.0%

All percentages are of those participating in the survey.

\*Prior to 1998 this question was hire/keep. Beginning in 1998, this statistic was for “hire only”.

\*\* Not calculated prior to 1997.

\*\*\* Not calculated prior to 1996.