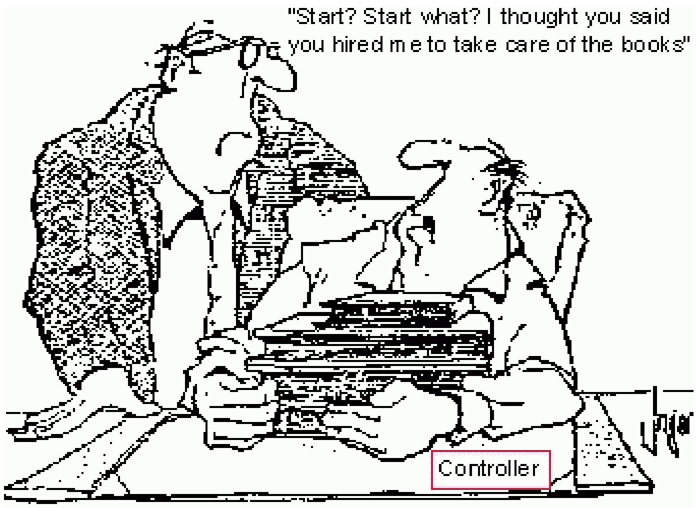
Planning and Control for the Non-Financial Manager

By John M. Burson



The managing principal of a design firm is often an architect or engineer who is a non-financial manager not trained in accounting. This managing principal is responsible for making decisions that determine the firm's financial success. It is the controller's responsibility to communicate the analysis of the firm's operations and profit plan progress to the non-financial manager in a meaningful way so that appropriate decisions can be made to keep the firm on target with the profit plan goals.

A one page Executive Summary of Operations along with graphic charts of important key indicators of financial performance helps translate financial data into meaningful information for the non-financial manager. The report example below shows the suggested content for the Executive Summary of Operations.

The suggested format for the graphic charts are shown. The current year's labor related key indicators are more meaningful when compared to prior years actual and the profit plan target. In this example, the current year-to-date data is compared to the previous six years actual data and to the profit plan data.

Also, progress toward the current year's profit plan objectives are shown in graphic charts. Total revenue, net revenue and operating profit are shown on one chart with total labor, direct labor and overhead expense in another chart. The cash flow chart makes it easy for the non-financial manager see how actual cash compares to planned cash and how much accounts receivable need to be collected to reach the cash objective.

The revenue projection chart compares the projected monthly billing backlog to the profit plan monthly objective and profit plan goal. This chart helps the non-financial manager see potential future cash flow and production/staffing problems.

How are financial controls used to manage? The profit plan goals and objectives must have specific values. The variance from these specific values can be measured. If the profit plan goals and objectives can be measured, then the profit plan can be managed and controlled. The controller's job is to prepare the annual profit plan and measure the progress toward the plan objectives and goal.

The controller begins the income statement analysis after the bookkeeping for the period is completed. Actual values are compared to planned values. Variances are identified and analyzed. Evaluation of the variances between the profit plan and actual operations is the key to financial control.

The results of analysis are interpreted so that the non-financial manager can make informed decisions on what actions may need to be taken to reach the profit plan goal. Decisions made to correct unfavorable variances from the plan help keep progress toward the profit plan goal on target.

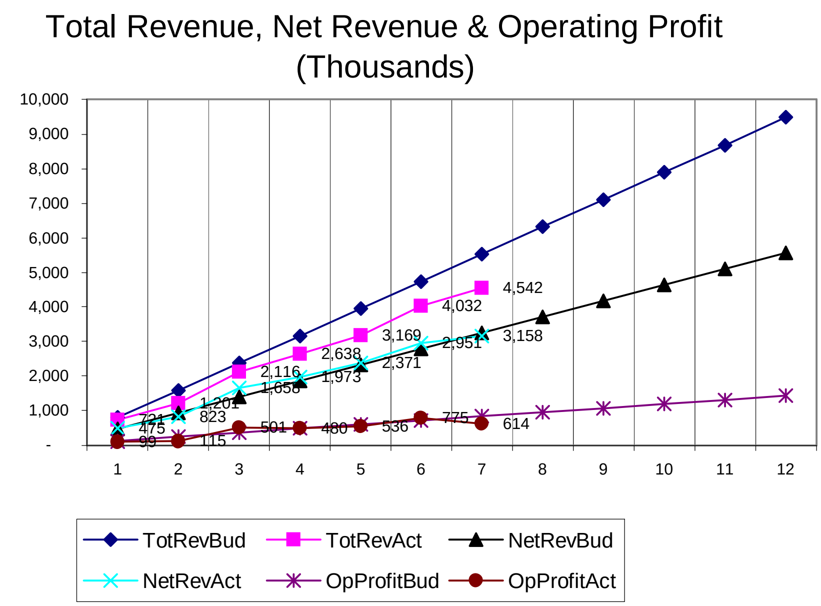
Where are financial controls in a professional service firm? The financial goals and objectives for the professional service firm are determined by the annual profit plan. The profit plan key indicators provide the benchmarks to measure and control the key indicators of actual operations.

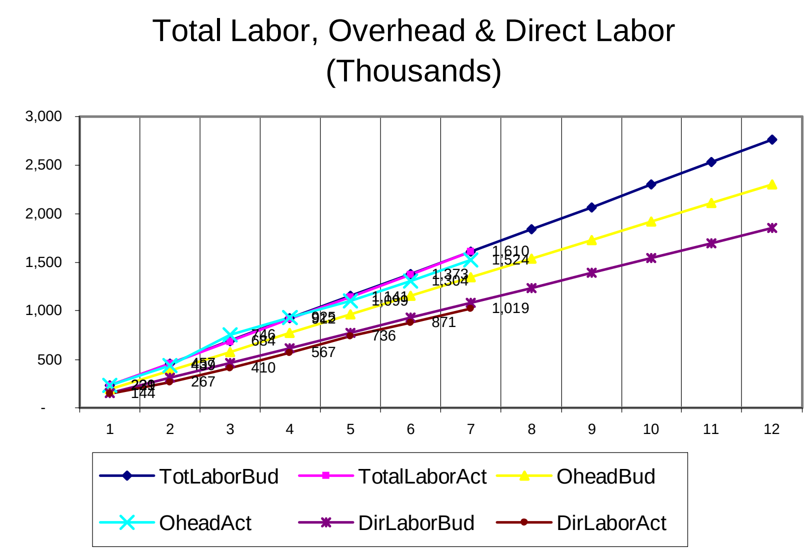
The business of a professional service firm is the provision of an hour of labor. Labor constitutes 2/3rds of most professional services firm's expense and is the most readily adjustable item of expense. In a professional service firm, time is money. The unit of service is the direct labor hour. Available direct labor hours determine the capacity of a professional service firm to generate revenue.

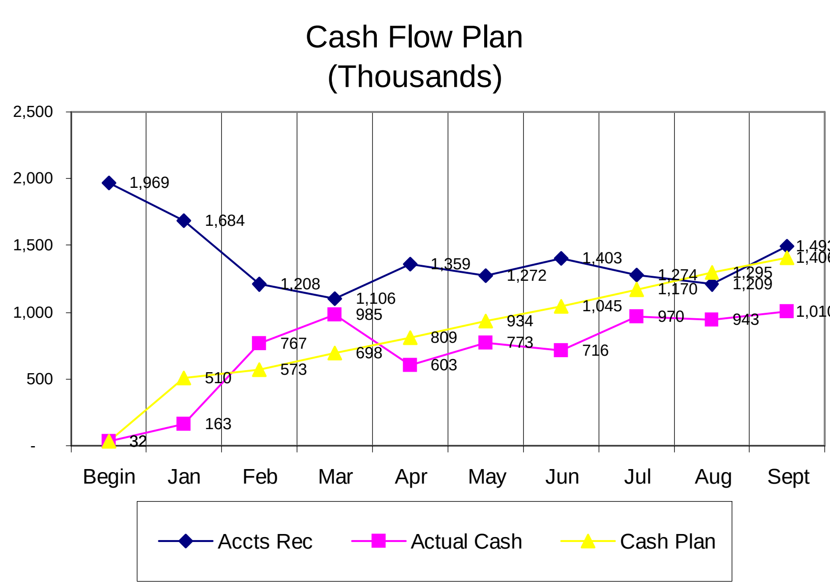
Labor-related ratios and multipliers are the key indicators of financial performance. Labor-related ratios and multipliers are the focus of financial control. These key indicators of financial performance are comparable to firms of various sizes and the same firm from year to year.

The labor-related key indicators of financial performance include:

- Net Multiplier (Net Revenue divided by Direct Labor)[1]
- Revenue Factor (Net Revenue divided by Total Labor) or (Utilization Rate times Net Multiplier)







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[1] Net Revenue is Total Revenue less Direct and Reimbursable Expense.

• Overhead Rate (Indirect Expense divided by Direct Labor)
• Operating Profit Multiplier (Operating Profit divided by Direct Labor)
• Utilization Rate (Total Labor Dollars divided by Direct Labor Dollars)
• Net Revenue per full-time-equivalent[2]
• Operating Profit per full-time-equivalent

What is included in the analysis of operations and key indicator variances?

Utilization Rate and Full-Time-Equivalents:

Is there enough backlog to support the target utilization rate in the labor budget for technical staff? Is the utilization rate in the time analysis based on total hours worked or standard hours? Standard hours is more meaningful since there should be no budget for overtime. What is the overtime percentage for technical staff? If there is excessive overtime for several months, should additional staff be hired? How many full time equivalents do overtime hours represent? What is the ratio of non-technical staff to technical staff based on hours and dollars? How does this compare to industry averages in selected surveys? How does this compare to the profit plan and prior years actual?

Total Revenue:

What is the percentage of total revenue based on net revenue? How does this compare to last year? Is the variance reasonable? Have consultant expenses been properly accrued based on revenue recognized to give a proper "matching" for projects with lump sum fixed fees?

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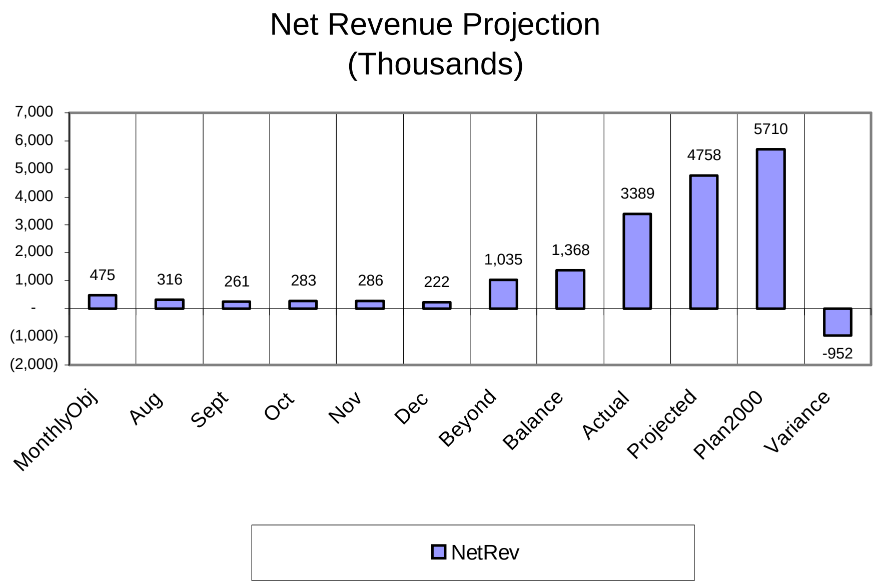
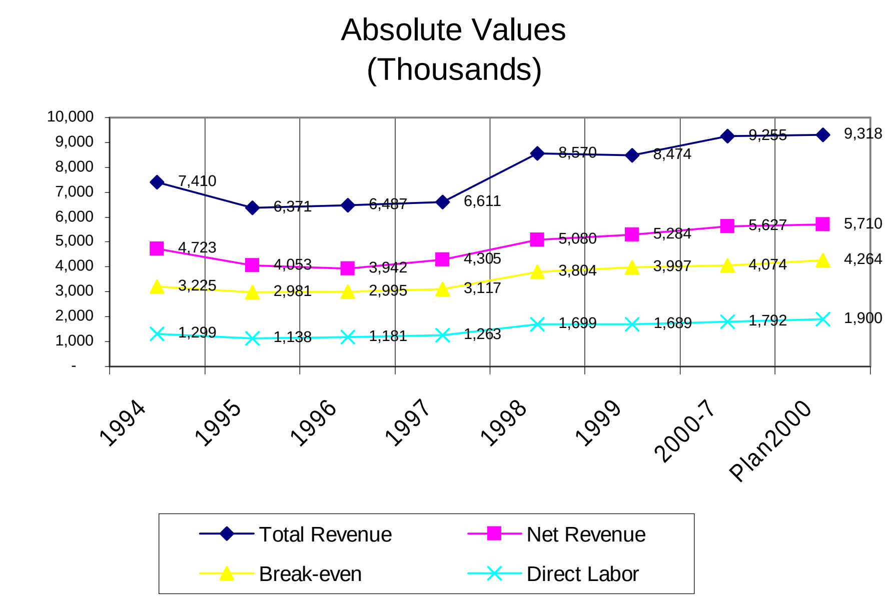
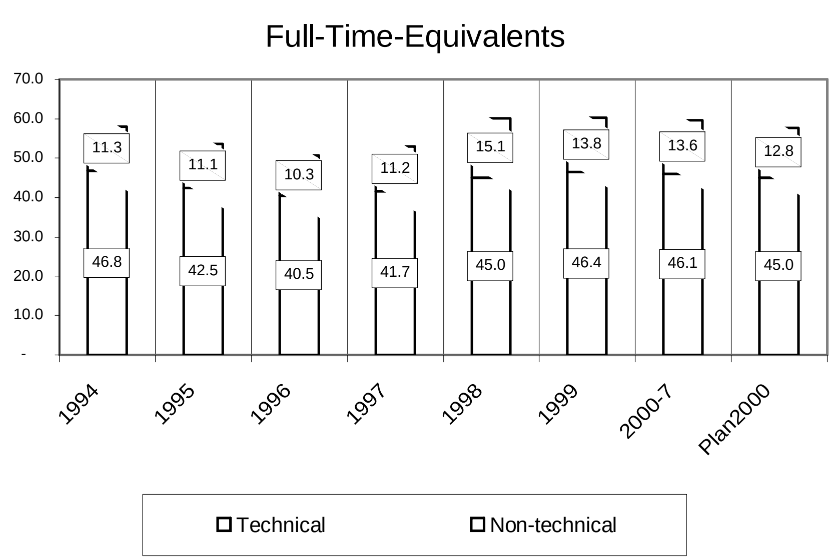
[2] Total full time equivalents are calculated by dividing total firm labor hours by standard hours. Standard hours for one year is usually 2080 hours (40 hours per week times 52 weeks).







Unbilled Services:

The "matching" principal of accounting. Is unbilled revenue properly recognized when projects have significant accumulated expense with no offsetting billed fee revenue?

Net Revenue:

How much of the net revenue variance is result of billing rate "price" variance and how much is due to "volume" based on variance of direct labor hours? How much is net revenue per direct hour? What is the net multiplier variance from the plan and last year's actual? Is the percentage analysis of the income statement based on total revenue or net revenue? Percentage analysis based on net revenue is more meaningful since it is more comparable from firm to firm and the same firm year to year.

Revenue Factor (also called Labor Multiplier):

What is the revenue factor value and how much is the variance from the plan? Based on the profit plan revenue factor, how much should net revenue be for the year-to-date? Based on the profit plan revenue factor, how much should total labor be for the year-to-date? How can unfavorable variances be improved?

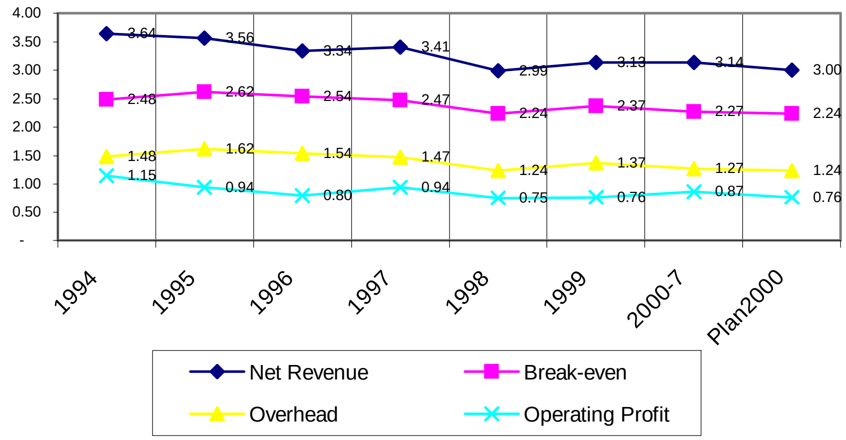
Direct Labor:

How much is the direct labor variance? What is the variance for the profit plan average direct labor rate? Why is the average direct labor rate over or (under) the profit plan rate? Is it because higher paid principals and managers are over or under utilized? Are raises given at the beginning of the year or in the middle of the year? How much is total labor as a percentage of net revenue? How much is the price/volume variance of direct labor?

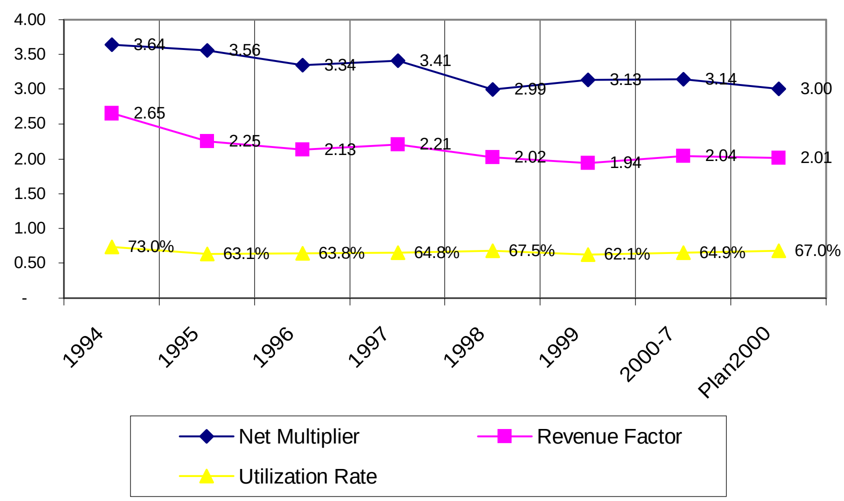
Overhead:

How much is total overhead? How much is overhead per direct hour? What is the price/volume variance for overhead? How much is the overhead rate? Why is

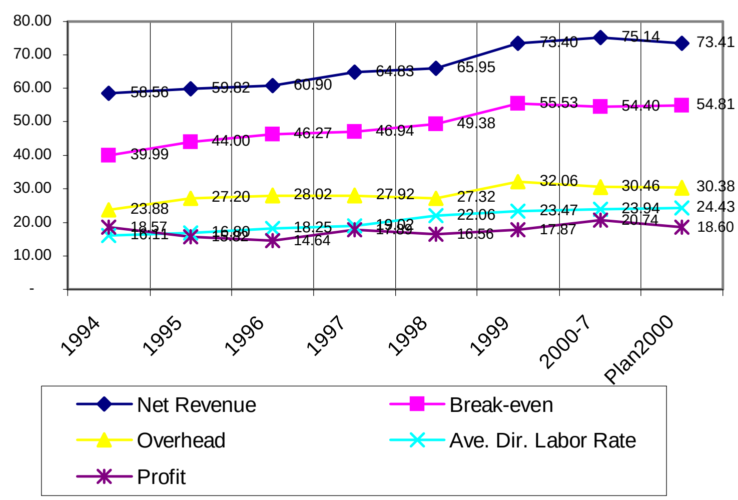
Multiples of Direct Labor



Revenue Factor
(Net Multiplier X Utilixztion Rate)



Per Direct Labor Hour



the overhead rate over or under the plan rate? How does the indirect labor variance affect the overhead rate? How can the overhead rate be improved?

Break-even:

How much is the break-even multiplier? How much is the break-even rate? How much are the variances from the profit plan? How can the break-even multiplier and break-even rate be used in fee billing and negotiations?

Operating Profit:

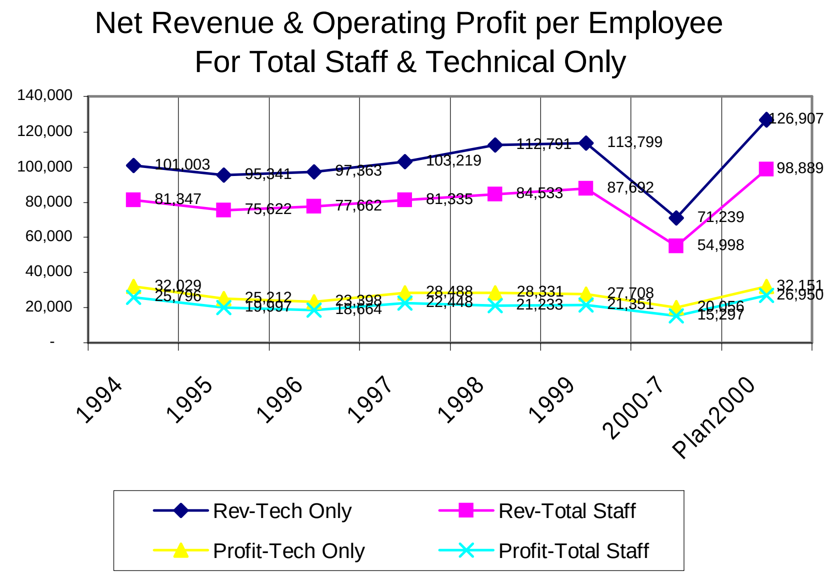
How much is operating profit for the year-to-date and what is the variance from the plan? How does this compare to last year? Was last year a "good" year or a "bad" year? What is the price/volume variance? How much is operating profit as a percentage of net revenue? How much is operating profit per direct hour? How much is the operating profit multiple of direct labor? Why is operating profit more or less than planned? Can specific projects be identified that contribute significantly to the operating profit variance?

Cash and Receivables:

How much is the cash balance? How much is the variance from the annual cash flow plan? How does the cash balance compare with this time last year? What is the balance of accounts receivable? What is the average collection period (days)? How does the balance compare to this time last year? How much is over ninety days old and what is the percentage? What efforts are being made to collect the past due accounts?

Revenue Projection Backlog:

How much is the revenue projection backlog? How many months will the revenue backlog sustain the firm at the current profit plan rates and multipliers? How does this compare to this time last year? Is the projected revenue for the next three months enough to meet the monthly revenue objective in the profit plan? How many full time equivalents are required to produce the available revenue at profit plan rates and multipliers? Based on revenue backlog, is the firm over or under staffed?



The following report example answers most of the above questions for the non-financial manager:

Executive Summary - Analysis of Operations for the Seven Months Ending July 31, 2000

The firm-wide **utilization rate** based on dollars is 64.85% or (2.14%) under plan of 66.99% and is 2.74% more than last year. The utilization rate based on hours for technical only is 78.15% or (4.96%) under plan of 83.11% and is 3.61% more than last year. The firm-wide utilization rate based on standard hours is 61.79%. This is (2.97%) under the plan rate of 64.76% and is 3.75% more than last year. Direct labor is ($107,856) under the plan and indirect labor is $35,361 over the plan.

Total full time equivalents of 59.69 is 1.94 more than the 57.75 plan and is (0.58) less than last year. Net overtime hours of 2,934.0 account for 1.41 full time equivalents. **Technical full time equivalents** of 46.08 is 1.08 more than plan of 45.00 and is (0.36) less than last year. Technical overtime percentage of 3.27% represents 1.46 full time equivalents. Technical direct hours of 74,897 is (2,896) hours under plan and is 2,894 hours more than last year. The firm-wide **overtime percentage** of 2.42% is 1.38% more than last year. The ratio of non-technical full time equivalents to technical full time equivalents is 3.38 based on hours. This is (0.14) less than the 3.53 plan and is 0.03 more than last year. The ratio of technical to non-technical based on pay rates is 4.84 to 1.00.

Total revenue is $9,255,578. This is ($63,186) under plan of $9,318,763 and is $838,664 more than last year. Total revenue is 164.47% of net revenue compared to 159.32% last year. The actual percentage is (1.29%) under the 163.18% profit plan.

Unbilled services for the year-to-date increased $14,106 to $41,132 net unbilled. Net un-billed work in progress at the beginning of the year was $23,948.

Net revenue of $5,627,666 is ($83,154) under plan of $5,710,820 and is $314,642 more than last year. The unfavorable **volume variance** of $212,563 is the result of (2,896) direct labor hours under plan at $73.41. The favorable **price variance** of $129,409 is the result of 74,897 direct hours at $1.73 over the $73.41 plan. Net revenue **per direct hour** is $75.14. This is $1.73 over plan of $73.41 and is $1.35 more than last year. The **net multiplier** of 3.14 is 0.13 more than plan of 3.00 and is (0.01) less than last year.

The **revenue factor** of 2.04 is 0.02 over plan of 2.01 and is 0.08 more than last year. Based on the revenue factor plan, net revenue should be ($62,817) less than actual--calculated by multiplying actual labor times the planned revenue factor. Total labor should be $31,207 more--calculated by dividing actual net revenue by the planned revenue factor.

Direct labor of $1,792,764 is ($107,863) under plan of $1,900,627 and is $102,928 more than last year. The **average direct labor rate** of $23.94 is ($0.50) under the $24.43 plan. This is $0.47 more than last year. **Total labor** as a percentage of net revenue is 49.12%. This is (0.55%) less than plan of 49.68% and is (2.08%) less than last year. The **volume variance** of $70,743 is the result of (2,896) direct hours under plan at $24.43. The **price variance** of $37,120 is the result of 74,897 direct hours at ($0.50) under the planned direct labor rate of $24.43.

Overhead of $2,281,474 is ($81,927) under plan of $2,363,401 and is ($26,619) less than last year. The volume variance of $87,968 is the result of (2,896) direct hours under plan at $30.38 and the price variance of $6,042 is the result of 74,897 direct labor hours at 0.08 over the $30.38 plan. **Overhead per direct hour** is $30.46. This is $0.08 more than the $30.38 plan and is ($1.59) less than last year. The **overhead rate** of 1.27 is 0.03 more than the 1.24 plan. This is 0.09 more than last year.

The **break-even multiplier** is 2.27. This is 0.03 more than the 2.24 plan and is (0.09) less than last year. The **break-even rate** of $54.40 per direct hour is ($0.41) less than the $54.81 plan and is ($1.13) less than last year. The break-even rate is composed of direct labor and overhead.

Operating profit of $1,553,428 is $106,636 over the $1,446,792 plan. This is $238,333 more than last year. The **operating profit multiplier** of 0.87 is 0.11 over the 0.76 plan and is 0.09 more than last year. **Operating profit per direct hour** is $20.74. This is $2.14 over the $18.60 plan and is $2.48 more than last year. Operating profit is 27.60% of net revenue compared to 24.33% last year. This is 2.27% over the 25.33% profit plan. The operating profit variance of $106,636 is composed of a net unfavorable volume variance of ($53,851) and a net favorable price variance of $160,487.

The **cash balance** is $243,895. This is $11,314 more than last year. **Accounts receivable** total $2,507,211. This is $444,076 more than last year. Accounts over 90 days total $285,595 and is 11.3% of the total compared to last year's $298,258 or 13.18%. The average collection period is 55 days.

The **net revenue projection** backlog of $3,753,000 is enough to sustain the firm for 7.8 months at the current profit plan rates and multipliers. The net revenue projection last year was $3,817,500 or 7.8 months at that year's profit plan rates and multipliers. Net revenue backlog is (2.0%) less than last year based on absolute dollars.

The above one-page Executive Summary of Operations along with the ten graphic charts show the non-financial manager the key indicators of financial performance and the firms progress toward the profit plan goal. The non-financial manager needs more than a monthly income statement and balance sheet to make decisions that determine the firm's financial success.

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