

LECTURE OUTLINE

Office Management and Fee Calculation (Guest Lecturer: John Macsai)

FINANCIAL MANAGEMENT

Small Office production Cost (payroll):

1 Principal @ \$100,000	\$ 100,000
2 Associates @ \$75,000	150,000
1 Senior Architect @ 65,000	65,000
2 Junior Architects @ \$55,000	110,000
2 Beginners @ \$35,000	<u>70,000</u>
	\$ 445,000
Plus FICA	55,000
Plus Insurance	<u>100,000</u>
	\$ 650,000

8 persons @ 2,080 hours/year 16,640 hours

$650,000 \div 16,640 \text{ hours } 39.06/\text{hour}$

Small Office Misc. Expenses (overhead):

Secretary	\$ 60,000
Receptionist	45,000
Rent	65,000
Professional Liability Insurance	65,000
Other insurance	15,000
3 cars (5 years)	20,000
Printing	15,000
Phone, Fax	10,000
Utilities, supplies	10,000
Legal	20,000
Accountant	10,000
Miscellaneous	<u>30,000</u>
	\$ 370,000

$\$370,000 \div 16,640 \text{ hours} = \$22.24/\text{hour}$

Total without profit $\$39.06 + \$22.24 = \$61.30/\text{hour}$

Profit:

<u>Aiming at 20% of total, add:</u>	\$	<u>12.26/hour</u>
Average hourly billing including profit	\$	73.50/hour
	Or round: \$	75.00/hour

FEES TO SUSTAIN OPERATION:

Need to Stay in Business (without profit):

Production cost	\$	650,000
Overhead	\$	<u>370,000</u>
		\$1,020,000 ÷ 12 Months = 85,000/month

If profit is added:		
Total		\$1,224,000 ÷ 12 Months = 102,000/month

In order to generate \$1,224,000 architectural fees, one has to add consultants (equal about 35% of total fee):

Architect (65%):	\$1,224,000
Consultants (35%):	<u>659,000</u>
Total	\$1,883,000 fees per year **

If average fee is 4% of construction cost, \$1,883,000 fee represents \$47,075,000 construction volume per year to sustain this size office, almost \$50,000,000!

** To look at it another way, you need to collect:

$$\begin{aligned} \$1,883,000 \div 12 &= \$156,916/\text{month} \\ \$1,883,000 \div 52 &= \$36,212/\text{week} \\ \$1,883,000 \div 260 &= \$7,242/\text{work day} \end{aligned}$$

PAYMENT SCHEDULE

Assume a job with \$600,000 fee
 Less consultants 200,000 (about 1/3)
 \$400,000

PHASE	DURATION	FEE	PAYMENT
SD (15%)	2 months	60,000	2 @ 30,000
DD (20%)	2 months	80,000	2 @ 40,000
CD (40%)	4 months	160,000	4 @ 40,000
BN (5%)	1 month	20,000	1 @ 20,000
CON (20%)	12 months	80,000	12 @ 6,666

Make a time chart showing phase durations, intervals between phases (guess), and plug in payments realistically (consider time elapsed between billing and receipt of check).

FEE AND PRODUCTION COST

Assume job of \$12,000,000 construction cost (apartment building) and a 4% fee.

4%	\$ 480,000
Structural Engineer ($\pm 12.5\%$)	- 53,000
Mechanical /Electrical Engineer ($\pm 22\%$)	- 106,000
Spec. Writer	- 4,000
<u>Coordinating the Engineers (10% of engineers)</u>	<u>- 16,000</u>
<u>Profit (20%)</u>	<u>- 96,000</u>
Leaves to produce job:	205,000
$\$205,000 \div 61.30/\text{hour}$	3,344 hours

SD	1 person	8 weeks	=	320 hours
DD	2 persons,	8 weeks	=	640 hours
CD	3 persons,	16 weeks	=	1,920 hours (120 hours/avg. sheet for 16 sheets. Enough.)
BN	1 person,	4 weeks	=	160 hours
CON	$\frac{3}{4}$ person,	52 weeks	=	<u>1,560 hours</u>
				4,600 hours
				- <u>3,344 hours</u>
Shortage:				1,256 hours @ \$61.30 = \$76,993

Increase fee to 6%

6% fee	\$ 720,000
Struc. Eng. (12.5%)	- 90,000
Mech. Eng. (22%)	- 158,400
Spec. Writer	- 5,000
<u>Coord. Engineers (15% of engineers)</u>	<u>- 37,200</u>
<u>Profit</u>	<u>- 144,000</u>
Left to produce:	\$ 285,400

$\$285,400 \div \$61.30 = 4,656$ (almost enough)

Enough with a good cushion, but client may want to bargain. Try 5.5% or 5.75%.

MARKETING AND FEES

Why would client select you as architect?

1. Knows you
2. Knows your work
3. You were recommended

“Knows you . . .”

1. Widen your circle of acquaintances
2. Belong to and become active in organizations
3. Be written up

“Knows your work . . .”

1. In the beginning take any promising job
2. Enter competitions
3. Increase professional activities (A.I.A., teaching, lectures, articles, etc.)
4. Publicize whatever little you have (good presentation, relation with press, exhibits, agent? etc.)

Difference between marketing and selling

1. Marketing: Cold calls, networking, conventions, professional press, RFQ-RFP, etc.
2. Selling: Presentation (visual material, verbalization), politics

The miracle happened: You have a client.

1. What fee to charge?
2. How to get client to sign an agreement?

OTHER ISSUES TO SETTLE

1. What is and what is not included in fee?
2. When is fee being paid?
3. Reimbursables
4. Scope
5. Special cases: Limiting field visits, re-use rights, etc.
6. Form of agreement (handshake, letter, formal contract)

Issue of Consultants:

1. What do they charge? (The advantages of long term relationships)
2. What do they include in service (visits?)
3. What is their rate of pay? Must be same as yours.
4. Same contract conditions as yours.
5. Insurance
6. Settle in writing

FIGURING FEES

1. On the basis of % of the construction cost
 - Are there any generally accepted percentages?
 - The issue of “curve”
 - Is the client secure with it?
 - The ethical issues of overruns (or under)
 - What is the construction cost and when is it determined?

2. On the basis of lump sum
 - Must know your costs very well!
 - What if scope changes?
 - How to handle additive change orders
 - What about inflation?

3. On the basis of hourly compensation
 - No limits? Rewards inefficiency!
 - Fixed rates vs. current rates?

Multiplier: 2.5% times “payroll”
40% labor
40% overhead
20% profit

Payroll should include benefits

Small vs. large office overhead (multiplier of 2.75 or 3?)

Fixed rates of hourly compensation with overhead and profit

Principal	\$120
Project Manager	\$ 90
Job Captain	\$ 75
Architect	\$ 60
Drafter	\$ 35

Problems of averaging (at \$65?)

In all cases you must know production cost and overhead not to go bankrupt.