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## Job Order Costing at Sogel Aviation

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## ***Job Order Costing at Sogel Aviation***

***Bruce M. Bradford***  
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### **Introduction**

It has been a quarter of a century since the first calls for change in accounting education. In the Bedford Committee report (AAA 1986), published after nearly two years of deliberation, called for a complete overhaul of accounting education to meet the dynamic changes occurring within our expanding profession. One of their recommendations was to introduce more active learning into the classroom. This recommendation was echoed by the Big 8 white paper on education (*Perspectives on Education...* 1989) and the Accounting Education Change Commission (AECC 1990).

Two direct benefits are anticipated from introducing some active learning into accounting classrooms. While the number of accounting majors has been declining in the U.S. (Albrecht and Slack 2000), active learning has been shown to stimulate student interest in accounting courses and the major (Caldwell et al. 1996; Stout 1996). Traditional accounting education is usually characterized as textbook-based lecture/problem solving approach. While it is an efficient way to convey course material, this approach fails to provide students with sufficient opportunities to develop additional critical thinking, communication, and interpersonal skills required by the profession (*Perspectives on Education...* 1989). Active learning can be used to supplement the traditional methods with cases, simulations, and other activities that will help students develop these additional skills (Myers and Jones 1993).

*Job Order Costing at Sogel Aviation* combines a simulation of the job order costing manufacturing environment with a directed case activity designed for students in Introduction to Management Accounting. Following Burns and Mills (1997)<sup>1</sup> and Drake et al. (2001), this simulation involves students working in teams in class to build an airplane using the *Eagle Stunt Flyer* Lego<sup>®</sup> kit. This class-activity is followed by an out-of-class assignment designed to minimize ambiguity and help students discover the relationship between the manufacturing activities, accounting records, and accounting reports.

### **Case Materials**

Sogel Aviation, Inc. produces several models of small airplanes designed to meet specific customer's needs. The Eagle Stunt Flyer is a popular choice for crop dusting, skywriting and stunt shows.

Three assembly departments contribute to the manufacture of the Eagle Stunt Flyer. Department 1 assembles the lower fuselage and lower wing. Department 2 assembles the upper fuselage and tail. Department 3 assembles the upper wing, landing gear and decals. The three departments operate in sequence to produce each plane. Each department finishes its portion of one plane before beginning the next.

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The manufacturing costs accumulated for each job consists of three cost elements: direct materials, direct labor, and manufacturing overhead. Direct materials costs are from materials and parts traceable to each airplane. Direct labor costs accumulate from the time assembly workers spend constructing each airplane and are also traceable to each individual product. Manufacturing overhead consists of all remaining manufacturing costs that cannot be traced directly to an individual airplane. Indirect labor, indirect materials, and utility costs are examples of manufacturing overhead costs. Since manufacturing overhead cannot be easily and accurately traced to individual products, it must be systematically allocated.

In the manufacturing environment at Sogel Aviation, raw material and parts are requisitioned and placed into production at the beginning of the manufacturing process. When the job is finished, the completed airplanes are moved to a hanger until delivered. At the end of each period, the ending inventories are determined for the raw materials, work-in process, and finished goods inventories. The raw materials inventory is increased by purchases and decreased by requisitions of materials and parts utilized in the manufacturing process. The work-in process inventory contains all manufacturing costs accumulated on incomplete jobs. Each job is assigned costs for raw materials requisitioned, labor used in assembly, and applied manufacturing overhead. Once the job is complete, manufacturing costs associated with each job are transferred to finished goods inventory until the airplanes are delivered. At the point of delivery, the sale is complete and the costs for that job are transferred to the cost of goods sold.

The following information represents the manufacturing activity for January 2010:

**Direct Materials**

See the following Bill of Materials for one Eagle Stunt Flyer (Exhibit 1). The direct material costs are divided by assembly department.

**Manufacturing Overhead**

At the beginning of each year, Sogel Aviation determines a single plant-wide rate for applying manufacturing overhead. During 2010, the predetermined overhead rate is 200 percent of direct labor costs. The actual manufacturing overhead costs for January are \$25,000.

**Direct Labor**

The labor hours and pay rate for the assembly of each of the Eagle Stunt Flyer in Finished goods inventory on January 1, 2010 were:

			Picture Number of Operations List
Assembly Department 1	(40 DLH @ \$25)	\$1,000	1 - 6
Assembly Department 2	(100 DLH @ \$30)	3,000	7 - 11
Assembly Department 3	(160 DLH @ \$50)	8,000	12 - 17
Total		<u>\$12,000</u>	

**Nonmanufacturing Costs**

The nonmanufacturing costs consist of general, selling, and administrative expenses of \$15,000 per month.

**Related Events**

The following is a synopsis of Sogel's activities relating to the production of Eagle Stunt Flyers during January 2010:

- Jan. 1 No raw materials or work-in process inventories on January 1, 2010. The beginning finished goods inventory contained three Eagles constructed in 2009 and waiting for delivery.
- Jan. 2 Purchases all raw materials required for assembling two Eagles.
- Jan. 3 Started production for one Eagle designated as job no. 5.
- Jan. 15 Completed production of job no. 5.
- Jan. 20 Started production of one Eagle designated as job no. 6.
- Jan. 30 Sold and delivered two Eagles completed in December 2009 at \$80,000 each. Paid labor.
- Jan. 31 Partially completed job no. 6 was transferred to Assembly Department 2, but no additional work was carried out on this job during the month.

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**Exhibit 1. Bill of Materials for One Eagle Stunt Flyer**

<b>Panel A. Materials required for Department 1 (Steps 1 – 6)</b>				
<u>Quantity</u>	<u>Part No.</u>	<u>CPU</u>	<u>Total Cost</u>	<u>Description</u>
1	SC124	\$80	\$80	Red, thin, 2x4-node rectangular plate
1	SC 1110	100	100	Red, thin, 1x10-node rectangular plate
1	SC1212	240	240	Red, thin, 2x12-node rectangular plate
2	WA149	1,00	2,000	Red, wing assembly
1	SC323	120	120	Red, thick, 2x3-node rectangular block
1	SC242	240	240	Red, U-shaped block, 4 hollow/4 solid nodes
1	SC223	120	120	Red, triangular block, 4 hollow/2 solid nodes
1	SC242	260	260	Red, 2 triangular blocks fused to a 2x2 square
2	SC122	40	80	Black, thin, 2x2 node square plate
2	SC121	20	40	Black, thin, 2x1 node rectangular plate
1	SC100	20	20	Black, thin, rectangular plate w/o nodes
1	SA120	100	100	White, Steering wheel
<b>Subtotal</b>			<b>\$3,400</b>	
<b>Panel B. Materials required for Department 2 (Steps 7 – 11)</b>				
<u>Quantity</u>	<u>Part No.</u>	<u>CPU</u>	<u>Total Cost</u>	<u>Description</u>
2	SC313	\$60	\$120	Red, thick, 1x3-node rectangular block
2	SC114	40	80	Red, thin, 1x4-node rectangular plate
2	SC122	40	80	Red, thin, 2x2-node square plate
2	SC312H	40	80	Red, thick, side hole, 1x2-hollow node block
2	SC311H	20	40	Red, thick, side hole, 1 node block
2	CR2	10	20	Black, connecting rod with center band
2	EP1	50	100	Silver, exhaust pipe
1	TA1	500	500	Red, vertical tail assembly
1	TA2	500	500	Red, horizontal tail assembly
2	WS1	200	400	Red, wing support struts
3	SC122	40	120	Black, thin, 2x2-node square plate
2	SC223	60	120	Red, thick, 3 node triangular block
1	RB5	100	100	Red, roll bar
1	SC1110	100	100	Red, thick, 1x10 node rectangular plate
<b>Subtotal</b>			<b>\$2,360</b>	
<b>Panel C. Materials required for Department 3 (Steps 12 – 17)</b>				
<u>Quantity</u>	<u>Part No.</u>	<u>CPU</u>	<u>Total Cost</u>	<u>Description</u>
2	SC121	\$60	\$120	Red, thin, 3-node angular plate
1	SC124	80	80	Red, thin, 2x4-node rectangular plate
2	WA149	1,000	2,000	Red, wing assembly
1	EH1	1,200	1,200	Red, cylindrical engine housing
1	EA106	800	800	Gray, 7-hole disk
2	EA13	20	40	Gray, locking nut for propeller
1	PA13	1,500	1,500	Black, propeller
1	PA16	800	800	Black, Propeller axial
2	SC222	800	1,600	Red, triangular block, 2 hollow/2 solid nodes
8	SC110	25	200	Gray, circular 1-node disks
2	LG122	150	300	Gray, front landing gear assembly with wheel
1	LG104	100	100	Gray, rear landing gear assembly w/o wheel
1	LG100	50	50	Red, rear landing gear wheel
1	WS120	200	200	Clear, windshield
1	SD3	400	400	Set of decals
<b>Subtotal</b>			<b>\$9,390</b>	
<b>Total</b>			<b>\$15,150</b>	



**Case Requirements**

1. Each group of four students should assign one student to participate as Assembly Department 1, 2, and 3, as well as the Accounting Department.
2. Using the model and directions provided assemble one Eagle Stunt Flyer.
  - a. Direct labor costs for the Eagle Stunt Flyer under construction will be based on 1 minute of construction time equal to 20 DLH. The incomplete airplane will be assumed to take the same time as the completed airplane for Department 1. The pay rate for labor is the same in January as for the prior year.
  - b. The accountant should carefully record the time in minutes and seconds in Exhibit 2 (below) for each student spends completing his or her portion of the model.

**Exhibit 2. Conversion of Student Time to Direct Labor Hours**

	<b>Picture Steps</b>	<b>Minutes</b>	<b>Seconds</b>	<b>Conversion Factor</b>	<b>Direct Labor Hours</b>
Department 1	1 - 6			20 DLH/min	
Department 2	7 - 11			20 DLH/min	
Department 3	12 - 17			20 DLH/min	

3. On the completion of the assembly of one Eagle Stunt Flyer, the group should work together to prepare Job Cost Summary Sheets for job numbers 5 and 6 (Appendix A).
4. The group should work together to complete the Cost of Goods Manufactured Schedule (Appendix A). Assuming an income tax rate of 30%, also complete the Income Statement for January 2010 (Appendix A).

**Teaching Notes**

**Intended Audience**

This case is intended for Freshman and Sophomore students taking Introduction to Management Accounting. The stages of intellectual development of these students will be quite different from students taking upper-level or graduate classes. Baxter Magolda (1992) extensively investigated both undergraduate and graduate students and developed a model of intellectual development that provides insight into the usefulness of various teaching strategies for this audience.

She found students could be categorized as by their way of knowing as Absolute, Transitional, Independent, or Contextual. Freshman and Sophomores tend to be Absolute or Transitional learners. Absolute learners view knowledge as certain and unchanging. They learn from authoritative sources and expect to be evaluated on the factual material they have mastered. Transitional learners no longer see learning as certain and unchanging. They seek to understand the material and are able to apply that understanding in new situations.

Graduate students tend to be Independent learners while Contextual knowledge seems to be developed after years of professional experience. Independent learners see their opinions as equally valid with those in authority. They think for themselves and appreciate a chance to share views. Contextual learners value substantiated opinion that is well researched or developed based on experience.

The large multifaceted unstructured problems so common among cases developed for graduate students are not appropriate for Freshmen or Sophomores. These students are intolerant of the degree of ambiguity that such cases involve. This case has been developed as a directed activity that minimizes ambiguity. To further increase student interest, Legos® were used to simulate the job order costing manufacturing environment. This classroom activity provides novelty while helping students understand this “strange new world” of manufacturing.

**Classroom Use**

*Job Order Costing with Sogel Aviation* takes approximately one 50 minute class period to complete the in-class simulation. About half the time is spent on selecting groups, explaining the case and what is expected of them in-class and out-of-class, and distributing materials. The remaining time involves team assembly of the aircraft and cleaning up. I usually give the groups one week to meet and complete the out-of-class portion of the case.

**Learning Objectives and Assessment**

There are two aspects to the learning outcomes to be achieved with this case. As suggested by Stout (1996), this experience involves both cognitive and affective domains. My primary interest is how this simulation and case changes how the students feel (affective domain) about their accounting experience. A survey instrument based on Stout (1996) was used to survey students directly after debriefing the case (Appendix C).

The results of the survey are summarized in Table 1. The eleven questions were directed at four constructs. The five-point Likert-scale responses were scaled from 2 (most positive) to -2 (most negative). To accomplish this, questions 7 and 8 were reverse coded. Summary responses were also calculated for each of the four constructs.

**Table 1. Survey of Student Attitudes Associated with their Case Experience**

<b>Question</b>	<b>N</b>	<b>Mean</b>	<b>Std. Error</b>	<b>t-value</b>	<b>p-value</b>
Attractiveness of accounting as a field of study.	64	0.250	0.104	2.393	0.020
Perceived success in future accounting courses.	64	0.530	0.102	5.209	0.000
Perceived success in future business courses.	64	0.890	0.081	11.041	0.000
Section means for perceived impact of course.	64	1.672	0.235	7.123	0.000
Awareness of the importance of financial information in making decisions.	64	1.060	0.102	10.441	0.000
Awareness of the importance of nonfinancial information in making decisions.	64	0.550	0.092	5.968	0.000
Awareness of group dynamic issues in working with a team to achieve a common goal.	64	0.860	0.139	6.189	0.000
Section means for decision making environment.	64	2.469	0.026	9.577	0.000
How interesting is the case analysis portion of this course?	64	0.720	0.103	6.965	0.000
How valuable is the case analysis portion of this course?	64	0.940	0.089	10.565	0.000
How difficult is the case analysis portion of this course?	64	0.530	0.094	5.627	0.000
Section means for interest, value, and difficulty.	64	2.188	0.159	13.770	0.000
How has this course affected your perception of the desirability of a career in accounting?	64	0.000	0.089	0.000	1.000
How has this course affected your perception of the desirability of a management accounting career specialization?	64	0.120	0.119	1.051	0.297
Section means for career choice.	64	0.125	0.187	0.668	0.506

First, student's general perception of accounting and business is addressed in questions 1 - 3 on the attractiveness of accounting as a field of study and the likely success in accounting and business. Parametric evaluations of mean responses using simple t-tests were confirmed using nonparametric chi-square tests (only the parametric tests are presented here). For the first three questions, the mean summary response of 1.672 is significantly positive at the 0.01 level. Students feel that they will be successful at accounting and other business courses. They also found accounting to be attractive as a field of study.

Second, issues involving the case environment issues that arise from working with groups to solve problems, and the importance of both financial and nonfinancial data in solving problems were addressed in questions 4 - 6. The student's summary response of 2.469 was significant at the 0.01 level, with increased awareness of the importance of financial information in decision making demonstrating the strongest individual response.

Third, questions 7 - 9 examined student's interest in the case and their perception of value and difficulty. Tyson (1986) advocated the use of in-class simulations to increase student interest in job order costing because, "ACCOUNTING IS B-O-R-I-N-G." The use of Legos® to simulate the job order costing environment, following Burns and Mills (1997), appears to be effective in stimulating student interest. The predominately Freshman

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students seem to find this case to be somewhat difficult, but both interesting and valuable. The summary response of 2.188 is significant at the 0.01 level.

Fourth, in their responses to questions 10 – 11, the students did not change their opinion of accounting as a career. This is somewhat surprising given the responses to questions 1 and 2. Students felt they could be successful at accounting courses and found accounting an attractive field of study, but not an attractive career choice.

**Suggested Teaching Strategy**

In conducting this simulation and case, the classroom experience is structured following the four principles of cooperative learning: positive interdependence, individual accountability, appropriate grouping, and group processing (Cottell and Millis 1992, 1993; Peek et al. 1995; Caldwell et al. 1996). Positive interdependence is achieved through assigning individual student roles. The success of the group depends on each member performing their assigned tasks. Individual success depends on participating in the group and leaning from the case. Any student who refused to participate in the case write-up was not included in the group grade. Each student was held accountable for learning case-related concepts through the examination process.

Groups were chosen by random assignment to achieve heterogeneous grouping. One exception to this process was that night students working full-time were assigned to the groups with students having similar schedules. This practical consideration facilitated successful group interaction. Furthermore, the case was designed for group processing. Students need to work together to fill out the job cost summary sheets before determining the cost of goods manufactured and the cost of goods manufactured is necessary to complete the income statement. Subdividing the work would not be a successful strategy.

**Recommended Solution**

**Requirement 1 and 2**

In-class simulation of the manufacturing process takes place under requirements 1 and 2. The students are assigned to groups by having them count off one to seven and assigning all the ones to group 1, etc. Once in their groups, individual roles are assigned for the Accounting Department and three assembly departments. Students are asked to introduce themselves to each other. The student who volunteered to be the recorder (Accountant) is asked to record the contact information for all members of the group and email each group member the contact information directly after class.

A paper copy of the case is handed to each recorder and explained to the class so they understand what they are to do and why. Each group received one Eagle Stunt Flyer kit with instructions in a plastic bag on a paper plate. When the recorder is ready, the student performing department 1 assembly pores all the parts out on the paper plate and begins assembly. Usually, another member of the group holds the instruction book open while the assembly proceeds. When the first student completes the nonverbal instructions for steps 1 – 6, the plate with the remaining parts and the partially completed aircraft is passed down the line to the student performing the assembly for department 2. Time in minutes and seconds is recorded in Exhibit 2 by the recorder. After all three assembly departments have completed their assigned tasks and times have been recorded, the airplane is disassembled and returned to the plastic bag with the instructions. The recorder converts of the minutes and seconds into direct labor hours.

**Requirement 3**

As the first part of the out-of-class portion of this case, each group must fill out job cost summary sheets for jobs no. 5 and 6. These forms are the key to the case. Job no. 5 is the only completed job during January. Job no. 6 is the only incomplete job as of January 31. Therefore, the total product cost of job no. 5 is equal to the cost of goods manufactured for the month and job no. 6 is the ending work-in process inventory. This can be used to discuss the correspondence between the physical activities of manufacturing and the accounting records or between the accounting records and the financial statements.

The total product cost for jobs no. 5 and 6 will be different for each group since the direct labor and manufacturing overhead will be dependent on their time measurement. Manufacturing overhead is applied at the rate of 200% of direct labor costs so small differences in assembly time will be magnified into significant differences in product costs. This can lead to discussions on the importance of efficient operations management to profitability.

Two variations on job no. 6 often appear in submitted solutions. Job no. 6 has completed department 1 but not yet begun department 2. Some students requisition the materials for only department 1, while others requisition all materials for the three departments. I accept both interpretations and inform the students that with most case studies there are alternative solutions.

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**Requirement 4**

Since direct labor and manufacturing overhead are unique for each group, the cost of goods manufactured should be correspondingly unique. In addition variations in inventory valuation may also complicate matters. The beginning raw materials and work-in process inventories are set at zero. The materials for two airplanes are purchased. If the materials for job no 6 department 1 are requisitioned, the materials for job no. 6 department 2 and 3 compose the ending raw materials inventory. If all the materials for Job no. 6 are requisitioned, the ending raw materials inventory would be zero and ending work-in process inventory would be correspondingly larger.

For the income statement, students must determine the product costs of the three airplanes sitting in the hanger on January 1. During the period two of these airplanes are sold and a new airplane is added to finished goods. By forcing students to value both beginning and ending finished goods inventories, I try to get them to question which costs belong in inventory. I also have them resolve differences between the actual and applied manufacturing overhead to emphasize the correspondence between the accounting records and financial statements.

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**APPENDIX A  
Forms for Completion of the Case**

**Exhibit 3. Job Cost Summary Sheet.**

Job no. \_\_\_\_\_  
 Job status \_\_\_\_\_  
 Job description \_\_\_\_\_

Date started \_\_\_\_\_  
 Date completed \_\_\_\_\_

Direct Materials	
Department	Standard Material Costs
Assembly Dept. 1	
Assembly Dept. 2	
Assembly Dept. 3	
Total	

Direct Labor			
Department	Labor Rate / Hour	Labor Hours	Labor Cost
Assembly Dept. 1			
Assembly Dept. 2			
Assembly Dept. 3			
Total			

Manufacturing Overhead			
Activity Base	Quantity	Rate	Cost
Direct Labor Costs			

Cost Summary	
Direct Materials	
Direct Labor	
Manufacturing Overhead	
Total Cost	

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**Exhibit 4. Financial Statement and Supporting Schedule**

**Sogel Aviation, Inc.  
Cost of Goods Manufactured  
For the Month Ended January 31, 2010**

Direct materials:		
Raw materials inventory, Jan. 1		
Purchases of materials		
Materials available for use		
Less: Raw materials inventory, Jan. 31		
Direct materials used		
Direct labor		
Manufacturing overhead		
Total manufacturing costs		
Add: Work-in-process inventory, Jan. 1		
Less: Work-in-process inventory, Jan. 31		
Cost of goods manufactured		

**Sogel Aviation, Inc.  
Income Statement  
For the Month Ended January 31, 2010**

Sales		
Cost of goods sold:		
Finished goods inventory, Jan. 1		
Cost of goods manufactured		
Cost of goods available for sale		
Finished goods inventory, Jan. 31		
Unadjusted cost of goods sold		
Over /Underapplied overhead		
Cost of Goods Sold		
Gross profit		
Selling, general, and administrative expenses		
Income before income taxes		
Income tax expenses		
Net income		

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**APPENDIX B  
Suggested Solution for Job Order Costing at Sogel Aviation**

**Exhibit 5. Suggested Job Cost Summary Sheet for Job no. 5.**

**Sogel Aviation, Inc.  
Job Cost Summary Sheet**

Job no. 5 Date started January 3, 2010  
 Job status Completed Date completed January 15, 2010  
 Job description 1 Eagle Stunt Flyer

<b>Direct Materials</b>	
<b>Department</b>	<b>Standard Material Costs</b>
Assembly Dept. 1	\$3,400
Assembly Dept. 2	2,360
Assembly Dept. 3	<u>9,390</u>
<b>Total</b>	<b><u>\$15,150</u></b>

<b>Direct Labor</b>			
<b>Department</b>	<b>Labor Rate / Hour</b>	<b>Labor Hours</b>	<b>Labor Cost</b>
Assembly Dept. 1	\$25 per DLH	40	\$1,000
Assembly Dept. 2	\$30 per DLH	105	3,150
Assembly Dept. 3	\$50 per DLH	210	<u>10,500</u>
<b>Total</b>			<b><u>\$14,650</u></b>

<b>Manufacturing Overhead</b>			
<b>Activity Base</b>	<b>Quantity</b>	<b>Rate</b>	<b>Cost</b>
Direct labor costs	\$14,650	200%	<u>\$29,300</u>

<b>Cost Summary</b>	
Direct Materials	\$15,150
Direct Labor	14,650
Manufacturing Overhead	<u>29,300</u>
<b>Total Cost</b>	<b><u>\$59,100</u></b>



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**Exhibit 6. Suggested Job Cost Summary Sheet for Job no. 6.**

Sogel Aviation, Inc.

**Job Cost Summary Sheet**

Job no. 6 Date started January 20, 2010  
 Job status Partially completed Date completed \_\_\_\_\_  
 Job description 1 Eagle Stunt Flyer

<b>Direct Materials</b>	
<b>Department</b>	<b>Standard Material Costs</b>
Assembly Dept. 1	\$3,400
Assembly Dept. 2	
Assembly Dept. 3	
<b>Total</b>	<b><u>\$3,400</u></b>

<b>Direct Labor</b>			
<b>Department</b>	<b>Labor Rate / Hour</b>	<b>Labor Hours</b>	<b>Labor Cost</b>
Assembly Dept. 1	\$25 per DLH	40	\$1,000
Assembly Dept. 2			
Assembly Dept. 3			
<b>Total</b>			<b><u>\$1,000</u></b>

<b>Manufacturing Overhead</b>			
<b>Activity Base</b>	<b>Quantity</b>	<b>Rate</b>	<b>Cost</b>
Direct labor costs	\$1,000	200%	<u>\$2,000</u>

<b>Cost Summary</b>	
Direct materials	\$3,400
Direct labor	1,000
Manufacturing overhead	<u>2,000</u>
<b>Total cost</b>	<b><u>\$6,400</u></b>

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**Exhibit 7. Suggested Income Statement and Cost of Goods Manufactured Schedule**

**Sogel Aviation, Inc.  
Cost of Goods Manufactured  
For the Month Ended January 31, 2010**

Direct materials:		
Raw materials inventory, Jan. 1		\$0
Purchases (2 Eagles @ \$15,150)	30,300	
Materials available for use	30,300	
Less: Raw materials inventory, Jan. 31 (job no. 6)	<u>11,750</u>	
Raw materials used		\$18,550
Direct labor (\$14,650 + 1,000)		15,650
Manufacturing overhead (\$29,300 + 2,000)		<u>31,300</u>
Total manufacturing costs		65,500
Add: Work-in-process inventory, Jan. 1		0
Less: Work-in-process inventory, Jan. 31 (job no. 6)		<u>6,400</u>
Cost of goods manufactured (job no. 5)		<u>\$59,100</u>

**Sogel Aviation, Inc.  
Income Statement  
For the Month Ended January 31, 2010**

Sales (2 Eagles @ \$80,000)		\$160,000
Cost of goods sold:		
Finished goods inventory, Jan. 1 (3 Eagles)	\$153,450	
Cost of goods manufactured	<u>59,100</u>	
Cost of goods available for sale	212,550	
Finished goods inventory, Jan. 31 (2 Eagles)	<u>110,250</u>	
Unadjusted cost of goods sold	102,300	
Over/Underapplied manufacturing overhead	<u>6,300</u>	
Cost of goods sold		<u>96,000</u>
Gross profit		64,000
Selling, general, and administrative expenses		<u>15,000</u>
Income before income taxes		49,000
Income tax expenses (\$49,000 x 30%)		<u>14,700</u>
Net income		<u>\$34,300</u>

**APPENDIX C**  
**Evaluation for Job Order Costing at Sogel Aviation**

Circle the letter that corresponds to the response which best fits each question or statement.

1. Attractiveness of accounting as a field of study.
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact
  
2. Perceived success in future accounting courses.
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact
  
3. Perceived success in future business courses.
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact
  
4. Awareness of the importance of financial information in making decisions.
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact
  
5. Awareness of the importance of nonfinancial information in making decisions.
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact
  
6. Awareness of group dynamic issues in working with a team to achieve a common goal.
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact
  
7. How interesting is the case analysis portion of this course?
  - a. Very interesting.
  - b. Interesting.
  - c. Not interesting.
  - d. Boring.
  - e. Very boring.

8. How valuable is the case analysis portion of this course?
  - a. Very valuable.
  - b. Valuable.
  - c. No value.
  - d. Wasteful of my time.
  - e. Very wasteful of my time.
  
9. How difficult is the case analysis portion of this course?
  - a. Very easy.
  - b. Easy.
  - c. Not difficult.
  - d. Difficult.
  - e. Very difficult
  
10. How has this course affected your perception of the desirability of a career in accounting?
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact
  
11. How has this course affected your perception of the desirability of a management accounting career specialization?
  - a. Significant negative impact.
  - b. Negative impact.
  - c. No impact.
  - d. Positive impact.
  - e. Significant positive impact