Measuring project productivity and costs

LiveWell is implementing an EHR system at the beginning of next year and to prepare for go-live the Record Processing Unit (RPU) in HIM will use document imaging (scanning) to backload the entire previous year’s volume of dictated reports -including History and Physicals, Consultations, Discharge Summaries/Death Summaries and Operative/Procedure notes. This special project will be completed in addition to all regularly assigned tasks of the RPU and therefore, the CFO has asked for a projection of time needed and resources needed for the project by end of month.

Therefore, you have arranged a sampling of the Document Imaging Project (DIP) so that the time and resource projection can be ready for the CFO. You begin by tracking and recording production in the DIP sampling. Statistics are recorded below:

|  |  |  |
| --- | --- | --- |
| Employee | Number of Pages  | Hours Worked |
| Brianne | 321 | 14 |
| Ketar  | 306 | 11 |
| Marvelon | 282 | 16 |

1. To proceed with the research, calculate the average production for each staff member in the table below, then calculate the group average and finally calculate the stretch goal – which is defined as the midpoint between the calculated group average and the average of the highest producer. Insert your calculations in the table below. (Purple highlighted boxes.)

|  |  |
| --- | --- |
| Data Calculations | Average per Hour |
| Brianne | 22.9 |
| Ketar  | 27.8 |
| Marvelon | 17.6 |
| Group Average | 22.7 rounded to 23 |
| Stretch Goal= | 25.5 rounded to 26 |

2. Before proceeding with a projection for the CFO, you hold a meeting with the RPU staff to share the DIP with all staff members. Your goal is to determine how many are interested in committing overtime hours through the end of the year for the DIP. There are 5 interested people – Brianne, Ketar, Marvelon, Margaret and Valerie.

Your goal is to motivate all DIP participants and you reflect on the utilization of the data calculations above, especially the stretch goal which if produced by all team members can reduce the number of total hours needed for the DIP project. Assess and recommend how the productivity data calculations can be used to provide feedback to employees and positively impact performance. Write your assessment and recommendation here:

|  |
| --- |
| Assessment and Recommendation: The productivity data calculations will give a clear idea of the people who are doing absolutely well and the ones who need to improve, this will help identify the ones who should improve on their work and will be encouraged to improve to provide a better performance hence positively impacting the overall performance. I would have a 1:1 meeting with each team member individually to discuss strengths, and weaknesses in order to draft a plan to get everyone to meet their goal. We would then meet as a group to see how we can meet the stretch goal. Considering Ketar is ahead, he doesn’t need much of a push just to continue doing what he’s doing, good job. Brianne isn’t that far behind. By going over the numbers with her hopefully, she understands how close she is and picks up momentum. Marvelon would need motivation and coaching. I would ask how I would be able to assist him in helping him to reach his goal. I would make sure that they know how great they are doing and how close they are to meeting the goal. Possibly make it fun by turning it into a possible competition with a great incentive. Give them a choice before the force of mandated overtime.  |

3. Finally, you are ready to prepare your projection of time and resources for the DIP project. To prepare a reasonable projection, you decide to include a range in your projection which will give your projection some room for variation since it is difficult to know what obstacles the team might meet along the way with illness, equipment, scheduling, etc. To calculate the resource utilization, you must use the average hourly wage of your DIP team members. Calculate and insert the overtime rate (1.5x hourly) for each employee below, the average hourly wage for the group as well as the average overtime wage. (Purple highlighted boxes)

|  |  |  |
| --- | --- | --- |
| Employee | Hourly Wage  | Overtime Wage |
| Brianne | 12.78 | 19.17 |
| Ketar  | 14.03 | 21.05 |
| Marvelon | 15.10 | 22.65 |
| Margaret | 14.97 | 22.46 |
| Valerie | 13.63 | 20.45 |
| Average= | 14.10 | 21.16 |

4. Now that the hourly and overtime costs have been calculated, the number of work hours must be determined. You have reviewed the staffing schedule and have made a commitment to allow each DIP team member to spend one day per week of regular work hours on the DIP project - equal to 300 hours. These hours will be paid at the regular hourly rate. The remaining hours on the DIP project will be paid at the overtime rate.

The DIP project has 30,000 sheets that need to be scanned.

a. Calculate how many hours the DIP job will take using the group average production and then the stretch goal number. Insert your calculations in the purple highlighted boxes.

|  |  |  |
| --- | --- | --- |
| Total Sheets of Paper = 30,000 | Group Ave sheets per hour | Stretch Goal  |
| Production Ave (from question #1) | 23 | 26 |
| Hours Needed | 1304 | 1154 |

b. Using the production information and the hourly wage calculations from above, complete the table below to calculate the projected range of costs for the DIP project. Insert your calculations in the purple highlighted boxes.

|  |  |  |
| --- | --- | --- |
| **GROUP AVERAGE RATE** | Pay rate | Total Cost |
| Regular Pay Hours | 300 x | 14.10= | 4230 |
| Overtime Hours |  1004 x | 21.16= | 21,244.64 |
| Total | 1304 |  | 25,474.64 |
| **STRETCH GOAL RATE** | Pay rate | Total Cost |
| Regular Pay Hours | 300 x | 23= | 6900 |
| Overtime Hours | 854 x | 26 = | 22,204 |
| Total | 1154 |  | 29,104 |

5. Analyze your calculations and write a professional memo for the Vice President outlining the productivity and cost of your DIP team for the known workload of 30000 pages of document imaging. Be sure to include the production and financial details of your research which are located in 4b above. Insert the details in the purple highlighted boxes and then insert your memo for the VP here:

Projections for DIP Project

|  |  |  |
| --- | --- | --- |
| Variables and Considerations | Low End Production | Stretch Goal Production |
| Hours required to complete the DIP project | 4230 | 6900 |
| Estimated Cost to complete the DIP Project | $25,474.64 | $29,104 |