

BRIGHT-AID PHARMACY: HUMAN RESOURCE FORECASTING AND STAFF BUDGETING

Jan Welker, SUNY Institute of Technology
Lisa Berardino, SUNY Institute of Technology

CASE DESCRIPTION

The context of this case is a retail pharmacy in a large national drug store chain and requires students to forecast a staffing plan and calculate a labor budget to fit an operating schedule. It is specifically written for students learning about the management of Human Resources (HR) in any field of study. This case offers a step-by-step exercise (embedded within the case) to guide the student through the basic calculations required for planning the staffing of any operation. It addresses two of the three challenges (staffing and budgeting) presented by the tight labor market in one healthcare profession. Suggestions for the instructor related to variations on the case address the third challenge (scheduling) defined as the actual assignment of staff to certain days of the week or hours of the day. This case has a difficulty level of three on a scale of one to five and is appropriate for upper division, undergraduate students or graduate students. It is designed to be delivered in portions of two classroom periods with completion of the embedded exercise as homework between the two sessions or online in one learning module. When combined with a reading assignment, the exercise is expected to require one to two hours of student preparation.

CASE SYNOPSIS

Bright-Aid Pharmacy faces a challenge typical to retail environments: staffing the long hours of operations (9AM – 9PM every day of the week). In order for the pharmacy to operate, the store manager must staff several jobs: a pharmacist must be on duty, pharmacy technicians assist the pharmacist, and a cashier is needed. An exercise is embedded in the case to guide the analysis of this HR forecasting and staffing. Essential informational elements are provided to set the stage for designing, budgeting and implementing a staffing plan for a retail pharmacy of a large national drug store chain. The exercise and case questions require selection of appropriate informational elements to address the case components; calculation of production, full time equivalents of three levels of staff (pharmacists, pharmacy technicians and cashiers) and labor costs; and use of methods for monitoring performance in preparation for business growth due to such things as technology advances or national health insurance policy changes.

The Case Synopsis and the Case Description should be removed before this case is assigned to a student or student group. This information could prejudice the minds of students.

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North America
t +1 781 239 5884
f +1 781 239 5885
e info.usa@thecasecentre.org

Rest of the world
t +44 (0)1234 750903
f +44 (0)1234 751125
e info@thecasecentre.org

BRIGHT-AID PHARMACY

Since there seems to be a drug store, and sometimes more than one, on every street corner, the competition model seems to be thriving in the retail pharmacy industry. Consequently, there is a high demand for a short supply of pharmacists as well as pharmacy technicians. This is compounded by a high turnover among pharmacy technicians. These two circumstances call for careful use of the pool of available personnel through the human resource functions of staffing, scheduling and budgeting.

Determination of staffing requirements (the number of people needed to operate a component of a business) is a basic first step in HR management. The result includes the number of required positions, the number of people to fill those positions with associated wages and benefits, which lead to a budget and performance tracking.

Bright-Aid, a typical chain store pharmacy, is open daily from 9AM to 9PM, every day of the year except Christmas Day. In order for the pharmacy to operate, a pharmacist must be on duty. In addition, pharmacy technicians assist the pharmacist and a cashier runs the cash register. With the current shortage of pharmacists, staffing is often a challenge for store managers.

Bill Bradley is the store manager of one Bright-Aid location. The chain's regional vice president has requested that Bill design a staffing plan and related labor budget for the pharmacy component of the drug store for the next fiscal year. The vice president has also requested a plan on how to monitor performance and labor cost across time to measure progress as a basis for planning business growth. The vice president has requested the following analysis in the staffing plan:

- Select essential informational components to determine staffing needs by skill level.
- Perform calculations to determine the number of required staff by skill level to produce the designed work load.
- Create a labor budget for the pharmacy component of a retail drug store.
- Determine four measures to track production and cost performance over time.

Bill Bradley has the following information available for his analysis.

Days and Hours of Operation:

9AM – 9 PM every day of the week; closed on Christmas Day but open all other holidays.

Prescriptions Filled:

The volume of work produced per day is an average of 300 prescriptions/operational day (accounts for seasonal fluctuations and differences among days of the week).

Hourly Staff Wages:

Pharmacists \$55/hour; pharmacy technicians (technicians) \$11/hour; cashiers \$8.50/hour.

Annual Paid Benefits:

Full Time Staff: 6 holidays, 6 sick days and 1 personal day per year for all levels of workers; 4 weeks of vacation for pharmacists, 2 weeks of vacation for technicians and 2 weeks of vacation for cashiers

Full Time Staff Benefit Cost:

20% of annual wage.

Part Time Staff Benefit Cost:

no paid benefits.

Annual Paid Hours:

Each Full Time Worker: 2080 hours derived from (8 hours/day x 5 days/wk x 52 weeks).

Work Hours:

Full time pharmacists work a 12 hour shift 3 days per week from 9:00 AM – 9:00 PM and are paid for 40 hours. Part time/relief pharmacists work the same 12 hour shift and are paid for actual hours worked.

Full time technicians and cashiers work 8 hour shifts 5 days per week from 9:00 AM – 5:00 PM. Part time/relief technicians and cashiers work 4 hour shifts from 5:00 – 9:00 PM.

Lunch and Dinner Periods:

Lunch occurs 12:00 – 12:30 PM and dinner occurs 5:00 – 5:30 PM at which time the prescription filing process is temporarily closed since it cannot operate by law without a pharmacist on duty. Lunch and dinner periods for full time or relief pharmacists as well as lunch period for full time and relief technicians and cashiers are considered paid time hours due to the erratic ebbs and flows of the work load that may result in skipped meal breaks. Part time technicians and cashiers who work evening hours do not have a scheduled or paid dinner period.

Work Breaks:

Morning and afternoon breaks for full time staff are not scheduled but taken in staggered shifts as work load allows. No breaks are scheduled for part time cashiers and

technicians, who work the afternoon shift 5:00 – 9:00 PM. Therefore, break time is ignored in the productivity hours discussed below.

Minimum Productivity Hours by Staff Type:

All calculations are provided below. For simplicity, this case assumes vacation days, holidays, sick time, lunch/dinner periods and personal leave day are taken by each staff member for whom the benefits apply.

Full Time Pharmacists:

1678 productivity hours derived from 2080 paid hours – 160 vacation hours – 48 holiday hours – 48 sick time hours – 8 personal leave hours – 138 lunch and dinner periods (1 hour per day x 3 days/wk x 46 weeks each full time pharmacist is present and producing work).

Full Time Technicians:

1776 productivity hours derived from 2080 paid hours – 80 vacation hours - 48 holiday hours - 48 hours sick time – 8 hours personal leave -120 lunch period hours (.5 hours per day x 5 days/wk x 48 weeks each full time cashier is present and producing work).

Full Time Cashiers:

1776 productivity hours derived from 2080 paid hours – 80 vacation hours - 48 holiday hours - 48 hours sick time - 8 personal leave hours - 120 lunch period hours (.5 hours per day x 5 days/wk x 48 weeks each full time cashier is present and producing work).

Job Duties:

Pharmacist: Interpret physician orders; interact with physicians by phone, fax and email; check the incompatibility of ordered medications with other drugs or foods consumed by the patient; approve all prescriptions prepared by the technician; document all approvals; address any questions; and provide instructional assistance to customers.

Technician:

Place prescribed medication into the packaging, which incorporates stocking and operating a computer driven robot that counts and places medications in containers; attach labels to packaging; and verify insurance coverage for the prescribed item.

Cashiers:

Verify customer identity and match it to the prescription being dispensed; collect out-of-pocket costs not covered by insurance; operate the cash register; cover the drive-thru

window; direct customer questions about medications to the pharmacist; and secure customer signatures to document that prescriptions and instruction have been received.

CASE ANALYSIS ASSIGNMENT

Each student (or group of students as assigned by the instructor) is required to assume the role of Bill Bradley, store manager, in meeting the request of the vice president in the cases analysis exercise steps listed below.

1. Estimate the total number of hours of pharmacy operations per year.
2. Estimate the number of prescriptions (Rx) filled during the operational year.
3. Estimate the number of pharmacists needed to perform the required work for the operational year.
4. Estimate the number of technicians needed to perform the required work for the operational year.
5. Estimate the number of cashiers needed to perform the required work for the operational year.
6. Estimate the annual labor cost, including wages and benefits, to operate the pharmacy for:
 - Pharmacists:
 - Technicians:
 - Cashiers:
 - Total labor costs:
7. Calculate total labor cost per operational hour (becomes labor dollars per operational hour ratio expressed as \$: 1 operational hour).
8. Calculate total labor cost per prescription (Rx) filled (becomes labor dollars per Rx ratio expressed as \$: 1 Rx).
9. Calculate the number of prescriptions (Rx) filled per technician hour worked (becomes Rx per technician hour expressed as Rx: 1 technician labor hour). Note that the focus is on worked hours rather than hours paid, since the technician is not producing work when away on vacation or absent due to illness.

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10. Calculate the number of prescriptions filled per operational hour (becomes Rx per operational hour ratio expressed as Rx: 1 operational hour).

CASE DISCUSSION QUESTIONS

1. Discuss assumptions made in preparing the analysis. What are some of the implications of these assumptions?
2. Discuss why units of measure such as those in questions 7-10 above are important.
3. Assume new retail drug store technology (a more advanced robot) allows production to move to an average of 400 prescriptions filled per day of operation without any increase in staffing. What would be the impact on the number of prescriptions produced per year, total labor cost and labor cost per prescription filled?
4. Assume there is a strategic plan for the drug store chain to merge with the chain that operates a competing drug store across the street. What would be the staffing and budgeting implications?
5. How could expected turnover among pharmacy technicians be factored into the budget and what would be the result?
6. What would be the staffing and budget implications of the pharmacy being closed on Sundays?
7. Conversely, what would be the implications of the pharmacy operating 24 hours per day, including Christmas Day?
8. What is the impact if hourly wages increase by ten percent per employee level while benefits remain unchanged?

REFERENCES

- Anonymous. (2002). Pharmacist Shortage Worsens Nationwide, MSNBC, retrieved from <http://www.msnbc.msn.com/id/9956386/>
- Cascio, W. (2006). *Managing Human Resources: Productivity, Quality of Worklife, Profits*. 7th Edition. New York: McGraw-Hill.
- Desselle. S.P. (2005). Job turnover intentions among certified pharmacy technicians, *Journal of American Pharmacists Association*, 45 (6), 676-683.
- Heneman, H. and Judge, T. (2006). *Staffing Organizations*. 5th edition. New York: McGraw-Hill.
- Longest, Jr., B.B, J.S. Rakich & K. Darr (2004). *Managing Health Services Organizations and Systems*, 4th edition, Baltimore: Health Professions Press.
- Pal. S., (2002). Pharmacist shortage to worsen in 2020, *U.S. Pharmacist*, 27 (12), retrieved from http://www.uspharmacist.com/index.asp?show=article&page=8_1008.htm

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