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Absenteeism in an automobile assembly plant

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by

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APPROVAL PAGE

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CASE SUMMARY

This Applied Management Decision Report deals with casual absenteeism. It is based in the manufacturing environment in an automobile assembly plant located in the midwest. The final product, organizational structure and location are all described in conjunction with the relevance to the problem.

The factory's history is discussed along with a description of present policies in effect. These policies include discipline procedures and monetary incentives in relation to how they effect the problem of casual absenteeism. This report also touches on the financial impact of casual absenteeism. This includes lost production time, excess plant expenses and the cost of poor quality. Obligations to the union contract are recognized as present constraints to flexible management.

Absenteeism has negative consequences in four areas. These areas are safety, quality, cost and schedule. Each of these areas are examined in depth and analyzed.

This analysis results in the reduction of casual absenteeism into two basic sub-sets. These sub-sets are defined as the causes of the absenteeism and the acceptable level of absenteeism.

Potential solutions to the absenteeism problem and the effects are discussed and broken down into two categories.

These categories are the reduction of overall casual absenteeism and the reduction of the negative effects of absenteeism.

The resolution divides the problem into two categories. The first category is the frequency of absenteeism and the second category is the severity of absenteeism. Each one is addressed separately. In addition to stated solutions the author specifies how the responsibility of absenteeism should be handled.

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I wish to thank my best friend, my wife Judy, for all the support and encouragement she has given me these past ten years while I was in school. It was her determination and patience that allowed me the freedom and time away from my family to complete my many assignments. Thank you Judy.

SECTION I

INTRODUCTION

Problem

Casual absenteeism is a daily battle. The supervisor of an assembly line area must take role at the beginning of each shift to ensure that all operations in an area are covered with adequate manpower. The writer has worked in the automobile industry for 12 years. Of that 12 years, the first six was spent as an Production Area Supervisor and the last six year as an Industrial Engineer. Both positions have had to deal with casual absenteeism. First, as a supervisor it was his responsibility to deal with the problems caused by absenteeism and administering discipline within the confines of the union contract. Secondly, as an engineer his interests leaned toward the overall efficiency and negative quality effects induced by casual absenteeism.

Product

This study was centered around the high speed production of automobiles in a factory owned and operated by Chrysler Motors, a division of Chrysler Corporation. The vehicles produced over the years in this facility range from the economy class cars and trucks to the top of the line luxury vehicles. The vehicle is designed and processed so that numerous suppliers produce their individual components, then ship them to this factory for final assembly.

Structure

The organizational structure has become less rigid in the past few years. Traditionally there were clearly defined roles for both management and the line workers. However, today many of these roles inter-twine to help gain a competitive edge over rival companies. Product Quality Improvement (P.Q.I.) teams have been formed to assist in improving quality and reducing costs. These teams are made up of both management and hourly workers. They work together to help the employee on the assembly line, while increasing the company's overall good. In the past, the blue collar worker never questioned the contribution of their function. The employees only concern was to work and get paid. Today's workers are more concerned with such things as self-satisfaction and are interested in making a contribution to the organization. Tomorrow's workers will most likely be interested in more intangible rewards for their work than their fore fathers were.

Line and Staff

Management issues an annual organizational chart that illustrates the formal communication lines between supervisor and subordinate. It is segmented into departments starting with the president of the company and ending with the production supervisor. Although these lines are well defined, the informal organization in this assembly plant has evolved to a point where many decisions are made by teams and in some cases by the hourly workers. This has

changed the relationship of the management and workers from one of adversaries to one of partners. In order to gain the trust and cooperation of the hourly workers, management has had to become more liberal in their dealings with the workers. The hourly workers are invited to and encouraged to participate in decision making meetings. They are considered experts at their jobs and input for self-management is solicited. Management attitudes have been reshaped to a view of themselves as facilitators. Facilitators are expected to provide the hourly worker any and all support required to perform the job.

Philosophy / Mission

The Chairman of Chrysler Corporation, Lee A. Iacocca has had the corporate philosophy published in the annual stockholders report, printed on the cover of the corporate telephone book, framed and hung on the walls of the factory and distributed in several memos. It is the opinion of this writer that Mr. Iacocca wants everyone to fully understand the purpose and intent of the company. That is why the mission statement for assembly plant has been bronzed and hung in plain sight in key locations throughout the factory. According to Lee A. Iacocca, "The philosophy of Chrysler Corporation is to establish a teamwork environment where all employees, suppliers and dealers seek continual improvement to achieve customer satisfaction through engineering excellence, innovative product development, high quality, superior service and added value." This corporate philosophy

is reiterated throughout many company publications such as the telephone directory, product handbooks and annual report to the stockholders. The mission statement of Chrysler Motors' Belvidere Assembly Plant is as follows: "To provide our customers with world class vehicles crafted by a community of dedicated car builders." This mission statement is posted in numerous conspicuous locations within the plant. It appears in conference rooms, personal offices, training centers and is openly displayed on the production floor for all to see.

Location

The factory that this writer has chosen is located in Belvidere, Illinois. This is just one of many automobile assembly plants located outside the Detroit area. General Motors, Ford, Diamond Star and Chrysler, all have assembly plants within a two hour drive of this facility. Consequently, automobile production has a significant effect on this area's economy.

Environment

Some environmental factors that effect automobile production and it's workers include the seasonal temperature swings along with the precipitation levels. The summer brings high temperatures and occasionally high humidity. These factors sometimes necessitate additional relief breaks for workers that are performing physically stressful jobs or are located near hot points such as paint drying ovens.

Every year, stress takes a larger toll on the aging workforce in terms of medical problems and lost work hours. Winter brings the threat of snow. Heavy snow accumulation results in lost man-hours and reduced production. The local corn fields that are bare in the winter allow the wind to drift snow onto the roads making them hazardous and impassible, resulting in absenteeism.

Culture

This automobile assembly plant is located in a small farming community. It was built in 1964 and started producing cars for the 1965 model year. The hourly workers employed in this factory are represented by the United Automobile, Aerospace and Agricultural Implement Workers of America (U.A.W), Local #1268. The workforce has had minimal turnover for several reasons which will be discussed later in this paper.

When the plant first opened, it was filled with young men who worked on the assembly lines. Until recently most workers were too young to consider retirement. This has masked the needs of workers in this particular age group.

Many of these current workers are in the same stage of life. They have children that play sports in school or have other activities that require attention during working hours. Age is not the only thing in common among the workers. Many share the same interests in cars, recreation, family and community service. These shared interests sometimes lead to absenteeism. It is not uncommon to have

several employees take off of work at the same time to go hunting, attend a ball game or some other activity they enjoy as a group.

SECTION II

CURRENT SITUATION

History

Absenteeism at the Chrysler Motor's Belvidere Assembly plant has never been studied in depth. In the past, the factory has not fully utilized the flexibility allowed in the union contract. Management has the right to adjust the absentee pool size according to the anticipated absentee rates. The absentee pool is a group of extra employees not assigned specific duties. These employees are used to replace other operators only if someone doesn't show up for work. If the present absentee rate does not warrant the present absentee pool size, then management has the contractual right to adjust the size on a weekly basis. Casual absenteeism is known as the code #1 absentee rate. All unexpected absenteeism is considered code #1. If the code #1 absentee rate increased from June to July, an average of three percent over the last two years, then the size of the absentee pool should also increase respectively. Likewise with an anticipated decrease in the absentee rate. The contract allows for changes to the pool size weekly if necessary. This option in the contract has not been fully utilized for various reasons. First, it is time consuming to track and forecast the given percentages because it is not computerized. Secondly, the absentee pool employees are paid more money and therefore are one of the preferred jobs for

high seniority employees. If the size is constantly fluctuating, production management along with the union officials must canvass for people interested in the position. Third, they will also spend much time processing paper work either when more employees are added or when low seniority employees are dropped from the pool. Fourth, because the contract language is written to use the average, the forecast is high half of the time and low half of the time. It becomes quite easy for the parties involved just to set the size of the pool large enough to cover most cases throughout the year and not change it.

Policy

There are several types of absenteeism. Pre-excused absenteeism includes such things as jury duty, official union business, military leave of absence and time off arranged in advance. Chronic absenteeism occurs when an employee misses 20% of the available work hours in a six month period. The number of people that are considered chronic is constantly fluctuating. For the calender year of 1988, there were 57 people classified as chronic absentee problems. This represents 1.89% of the 2563 line workers and 450 off line hourly support workers. Not all these people were absentee problems at the same time. The specifics of the chronic absentee program will be discussed in a later paragraph concerning the union contract. Casual absenteeism, also known as code #1 absenteeism, is the subject of this

paper. An absence is considered code #1 when it was not previously arranged. Chronic absenteeism is only a part of the casual absentee problem.

Discipline

Discipline can only be issued to employees with more than six casual absences. These six absences can either be excused or unexcused by the employee's supervisor. Once seven absences are reached, the employee is counselled by his supervisor. All absences after the seventh one must be excused or more severe discipline is issued. On the eighth absence, the supervisor issues a formal written reprimand. The ninth absence will bring the employee five days off work without pay. The tenth absence (unexcused) will give the employee fifteen days away from work without pay. Upon the eleventh absence being unexcused, the employee is discharged. Only time and good attendance can reverse the discipline procedure.

Incentives

Chrysler Motors gives an attendance bonus to the hourly employees with perfect attendance. Perfect attendance is defined as either coming to work on each scheduled work day or in the event of an absence, it must have been pre-excused. Being late for work does not have any effect on the bonus. Some supervisors will tell the Payroll and the Labor Relations Department that an employees absent was pre-excused even if it wasn't. The supervisors will do this for their favorite employees and also when the union exerts some

pressure on the supervisor for their favorites too. This annual bonus is sub-divided into quarters. With each quarter of perfect attendance the employee receives $50.00 before taxes. After the completion of one year of perfect attendance, the employee receives an additional $300.00 in bonus to bring his annual attendance bonus to $500.00. This program began in 1987. In 1988 there was $1,085,900 distributed to the hourly workers at Belvidere for this perfect attendance. There was an average total of 3707 workers eligible for the program. On the average 65.6% received some bonus award, while 45.6% received the maximum of $500.00.

Financial

Absenteeism effects the financial growth of the company in both the short term factory expenses and the long term warranty repercussions. Employee attendance (or lack of) has a direct effect on maintaining production build schedules, incurring additional expenses and swaying customer satisfaction by effecting the quality of the end product.

Schedule

The planning that goes into producing an automobile is enormous. Material must be ordered months ahead of time and delivered on a prearranged schedule. When excessive absenteeism causes the assembly line not to start at the beginning of the shift, plans must be made to make up for the lost production. Usually lost production is made up on

overtime. Not only does this cause the direct labor hourly rate to increase by 50% because it is overtime, but the factory has to carry extra inventory until it can build the units on overtime. For each minute of down time, the plant carries extra inventory worth well over $8000.00 and loses more than $545.00 in wages. It is extremely difficult to pin point the exact amount of production lose due to absenteeism because of the type of conveyor system used. This factory uses power and free conveyors that allow some areas of production to run while others are shut down. This can only be done as long as the accumulators between areas have an adequate number of units to run. Scheduling overtime becomes especially tricky when the factory is already producing maximum output just to meet the public's demand for the product.

Plant Expense

The first plant expense item incurred because of absenteeism is the cost of the idle labor for the employees that came to work. The employees present can't produce because not enough people showed up to run the assembly lines. Yet, they must still be paid. The cost of keeping extra workers on the payroll, just in case of absenteeism is a direct and immediate cost to the assembly plant. Belvidere Assembly Plant maintains 117 extra workers for the sole purpose of covering code #1 absenteeism. Each worker costs the company $57,800 per year. This includes wages and fringe benefits. The annual cost to keep this absentee pool on hand

year round is in excess of 6.7 million dollars. These 117 absentee pool employees will take care of 2300 direct labor line workers. Enough manpower is allocated to handle an absentee rate of 5%. The cost of running an incentive program along with the cost of maintaining a discipline procedure can not be ignored.

Quality

Absenteeism also has a direct effect on quality along with its associated costs. When an inexperienced line worker is placed on a job, this employee is more likely to accidently make errors and not realize that an error had been made. This can result in more vehicles having to be repaired prior to shipment it to the dealership. Many times it becomes necessary to fix these vehicles on overtime at premium cost to the company. Another quality cost related to absenteeism is warranty. A study has shown that vehicles built during periods of high absenteeism have a 14% higher warranty cost.

Constraints

Supervisors have certain restrictions when it comes to dealing with absenteeism. The discipline procedure can not vary. The disciplinary steps are constant no matter which Chrysler factory is discussed. However, once the employee has started with the initial counselling, the supervisor can use discretion as to whether or not to excuse the absence. Only unexcused absences count against an employee after the

initial counselling. This causes problems within a factory because of favoritism or bias. Not all supervisors are consistent in the application of excusals.

SECTION III

PROBLEM

The problem to be addressed is that of controlling casual absenteeism and minimizing the negative affects caused by absenteeism in Chrysler's Belvidere Assembly plant. Attendance problems result in potential safety hazards, reduced quality, increased costs and missed build schedules. These problems need to be identified, evaluated and properly addressed.

Safety

Safety is an important aspect of any business. In the automobile industry the manufacturers must scrutinize the product from the employee's as well as the customer's point of view. Safety is the first consideration in any decision made by management at Chrysler.

Customer

Some jobs involved in auto assembly have a direct effect on the safety of the customer. There are certain fasteners, such as the steering wheel nut, that are covered up for appearances. Without this nut the steering wheel will fall off. If the assembly operator doesn't properly perform his job, the customer could get a potentially hazardous vehicle. Consequently, if the regular line operator is absent from work, the employee must be replaced by another operator not familiar with the operation. The new operator

may not notice a change in torque on the air tool used to secure the fasteners. This will lead to loose nuts and bolts and eventually a failed connection.

Employee

Many jobs on the assembly line have the potential of being hazardous to the well being of the employee. Protective clothing, proper use of the tooling and understanding the assembly process all have a direct effect on the health of many employees. This factory processes more than 1500 workman compensation claims per year. The average claim costs the company between $7,000 and $10,000. Protective clothing such as the type of gloves worn on a job can help or hinder the safety of an employee. The proper type of gloves to be worn while filling the fuel tank are made out of nitryl rubber. These rubber gloves protect the operator from prolonged exposure of fuel on the skin. If the regular operator is absent, it is possible that the replacement worker is not aware of these special gloves. If the replacement worker wore cotton gloves, the fuel drippings would saturate the material and cause skin problems.

Much of the new tooling purchased is ergonomically designed. This new tooling is designed to help prevent cumulative trauma associated with repetitious motions of the employee's extremities. This means that if an employee has to perform the same stressful motions over and over, the body may begin to wear out prematurely. A common

ergonomically stressful task is to secure several screws with high torque, repeated hundreds of times per day. Specially designed tooling is meant to relieve the stress experienced by the wrist. Properly used, the employee will grasp the air tool as if it were a pistol. The power is applied by pulling the trigger with the middle finger. An inexperienced operator replacing someone that is absent may inadvertently trigger the air tool using the index finger. This eventually may cause the employee potential harm.

Understanding the assembly process also has an impact on the employee's safety. Workers need to know what to do in the case of an emergency. For example a fire, a leaking gas tank, a broken air pressure hose or a failure with the fresh air supply would confuse many new untrained replacement workers. The absence of the normal operator may present a safety hazard to himself or those others working in the vicinity. Present safety training is focused on the regular line worker performing the daily duties assigned. No additional training is performed to target the absentee replacement worker. It is this worker that is more prone to injury due to the lack of knowledge than the worker that is familiar with the situation on a day to day basis.

Quality

Product quality is effected in both the long and the short term. An immediate consequence of absenteeism is the result of defective units being built. Experienced operators

develop the necessary finesse on the job to avert particular build problems. Line workers absent from their regular duties take with them the knowledge that many times will improve the product quality if the job is performed in a certain manner. Errors by replacement workers cause subsequent operators to either have to work harder in order to properly perform their job or they may not be able to perform their job at all.

Most of these defects are caught and corrected inside the assembly plant. However, some of these defects slip through the systems of inspection and go to the customer. Once the customer receives the vehicle the company runs the risk that it will be brought back to the dealership for repairs. Assembly plants must account for the warranty costs and changes in customer satisfaction. Presently the warranty cost per vehicle is $237.37 after one year in service. In addition, once the customer becomes aware that the vehicle was defective, the customer becomes more critical of the product and may return the vehicle for more work that might not otherwise have been necessary. This not only creates more costs but may also result in permanently losing a customer.

Cost

The initial costs of absenteeism are the wages and benefits paid to the absentee pool employees if they are not required. For example if the 2300 line workers had an

absentee rate of 3.8%, only 87 additional people would be required instead of the 117 now employed. That would equated to a savings of ([117-87] * $57,800) $1,734,000 annually. They may not be required if all the regularly assigned line workers show up for work, but the absentee pool employee must still be paid. The unearned wages and benefits received by the absent worker is also a consideration. The straight time fringe benefit rate is $9.84 per hour. Fringe benefits are a cost to the company whether or not the employee comes to work. The time and administration of additional workers is a cost to the company. Discipline issued along with its consequences may result in additional costs to the firm. This includes the costs incurred by the company when an employee is given time off of work without pay such as discipline for absenteeism. It is much the same as absenteeism itself. Many of the additional costs can be significant yet difficult to specify.

One additional cost requiring in-depth analysis is the cost to offer an attendance incentive program. These costs must be balanced against the benefits received by the attendance of the employees that otherwise would have been absent without this program. When excessive absenteeism results in a line stoppage, the workers that came to work must still be paid even if they can not produce any vehicles. This cost is added as a fixed overhead rate to determine downtime costs of absenteeism.

Schedule

Absenteeism can cause the assembly line not to run when there are more jobs to fill then there are employees to fill them. At times it becomes necessary to wait for enough workers to show up late for work so the line can run. This causes the production rate to vary from the build schedule. When this happens purchasing must adjust inventory to reflect to present situation because many items are kept low in inventory on purpose. The benefits of low inventory rates are numerous. The first benefit is not having the company's money tied up in material. Each day the factory processes $6,866,000 worth of inventory. The company need not waste its money on interest payments for money borrowed to stock excess inventory. Secondly the existing floor space does not need to be wasted by storing non-productive inventory. This space can be better utilize for production. Third, the increase in inventory turnover results in always having fresh stock. Fresh stock results in improved quality and lower costs due to a reduction in scrap and inventory shrinkage. Lastly, the remaining inventory that is required to keep on hand is easier to maintain. This means that there is less counting of parts and less overall material handling.

If the marketing department deems it a necessity to maintain the established build schedule, then production must make up the lost units on overtime. Working overtime means paying all the workers at a wage rate that is half

again as much as would normally would be paid. In addition, the indirect labor hourly and some salary would also get paid overtime along with the increase in other manufacturing expenses such as utilities. Each additional hour costs $37410 or $623.50 per minute.

The Budget Department estimated that $2,875,000 annually could be saved by forcing conformance to established absentee procedures.

SECTION IV

PROBLEM ANALYSIS

Analysis of absenteeism is multi-faceted. An observer needs to investigate the situation from many perspectives. The human resource part of management must blend with the other components such as production, finance, quality and safety in order to fully appreciate the ramifications of absenteeism. This paper does not examine each area in detail but discusses absenteeism as it effects the big picture.

Presently the company recognizes absenteeism as a problem, but has never spent the necessary time or resources to fully understand the circumstances. Chrysler has attempted to improve the situation by creating several programs designed to impact absenteeism. After the programs were started, no follow up was done to verify that these programs did in fact aid in the problem of absenteeism. Changes in the disciplinary procedure, the addition of attendance bonus pay and the 500 day pin are examples of these attempts to reduce the impact of absenteeism. These programs along with their benefits and problems will be discussed in the next section of the paper.

Causes

Absenteeism has many causes. Generally most absences can be planned without adverse consequences. These include such things as jury duty, vacations, union business and

military leave. It is the unplanned casual absences that produce the problems. These casual absences may fall into different realms. First, there is the casual absence that may happen any day of the week for many different reasons. Second, there are the absences that seem to occur at a higher rate on second shift each Friday. Third is the weather related absences (either for beautifully sunny days or for miserably snowy nights). Lastly are the special events absences. These include such things as graduation day, the opening of deer hunting or the coming of a holiday.

Most casual absenteeism throughout the week is the result of such things as personal illness, illness in the family, transportation problems and other things outside of the immediate control of the employee. Occasionally an employee may wish to just take a day off of work. The rate of casual absenteeism is higher on the afternoon shift for several reasons. The afternoon shift employees have less seniority and tend to have fewer personal responsibilities. The lack of personal responsibilities gives the employee more freedom to act in a reckless manner when it comes to attendance. They also have a higher rate of substance abuse which contributes to the attendance problems. In addition, the low seniority personnel on the afternoon shift generally have fewer vacation days than the employees on the morning shift.

The afternoon shift on Friday has the highest rate of absenteeism throughout a normal week. By the end of the work

week, some employees are willing to use one of their five paid "sick" days or just not get paid, and take Friday off. This results in the employee having a three day weekend. The employees on the afternoon shift are paid on Thursday night and the day shift employees are paid on Friday morning. This gives the day shift a little more incentive to come to work on Friday than the afternoon shift has. The culture of our society discriminates against afternoon shift workers by gearing most social activities for the morning shift worker. For example, an employee that has a child playing in inter-scholastic sports can not attend the related functions such as banquets and games because of the events being scheduled in the evening.

Weather plays a minor role in absenteeism. A few employees will forego work to enjoy a warm sunny day in the summer. It is more common for bad weather in the winter time to cause excessive absenteeism. These snow days often delay the production line from running. Usually a couple days of production a winter will be lost due to weather delays.

Special events such as the opening day of deer hunting season, high school graduation, the day before a holiday weekend and the day after distributing the monies from the unused paid absence allowances, always result in an increase in absenteeism. Although a certain amount of this can be anticipated, preparing and executing an action plan is on such a grand scale that it can not be done without some effect on production. The effects it will have include lower

quality and missed build schedules. Generally management will survey the employees prior to one of these events to determine a plan to minimize the negative effects. For instance, if five operators in any given area supervisor's zone are absent, the five replacement workers need to be all trained at the same time if they are not in the absentee pool. The absentee pool of normal replacement workers is kept at a minimum to help keep costs down. Additional workers are scheduled for special events but are not trained on individual operations before they are needed. One supervisor can not effectively train more than one operator at a time on a job. It takes several minutes and several operation cycles to learn a job because for the various different possible build scenarios. This causes the plant to build defective units or to hold the assembly line and miss their build schedule.

Acceptable Level

It is impractical to believe that absenteeism can be eliminated. Therefore management must determine what is an acceptable level of attendance. Once this level is determined, management must map out a course of action that will help achieve the goals and at the same time minimize the negative effects of absenteeism. Determining the acceptable level of absenteeism can not be done by comparing this factory with another one, either in the same geographic location or owned and operated by the same company. Other

automotive manufacturers within the same proximity live with different union contracts, work schedules and different cultural makeup of the employees. Variables from plant to plant are too great to compare results because the root cause for the difference may not be readily apparent. This facility has decided to set its goal at 3.8% absenteeism. This percentage was selected by the plant staff because it is a goal within reach and it gives the supervisors an idea of how their area is performing to a standard. The payroll department publishes a weekly table showing the plant absentee rate from the previous week in comparison to other weeks. It is not uncommon for the plant to reach its goal many times throughout the year. Last year (1988) the plant averaged 3.825 percent code #1 absenteeism.

SECTION V

POTENTIAL SOLUTIONS

The solution to absenteeism is two fold. First, the company must devise a plan to reduce absenteeism. Second, the company must determine how best to reduce the negative effects of the residual absenteeism.

Reduce Absenteeism

Casual absenteeism can be influenced by the use of positive reinforcement, discipline, peer pressure and the quality of work life. These options can have either a positive or negative affect on the employee. This also allows much latitude in the application of the influences used on the employee.

Positive Reinforcement

Positive reinforcement is the strengthening of an employee's actions by giving the employee additional remuneration of some type. This includes such things as recognition awards, bonus pay and additional benefits.

Recognition awards such as a 500 day pin for perfect attendance give the employee public acknowledgement. It is this public acknowledgement that helps to increase the employee's self-esteem. A 500 day pin is presently available to the employees at Chrysler. Few awards are issued for two reasons. First, 500 work days is almost two calender years. Two years is a long time not to miss any work, few people

can work that long without taking a day off. Secondly, the administration of the award is not properly organized. Presently the employee's supervisor must request the Human Resource Department to order a pin for a particular employee. This means that the supervisor must be keeping good records on each employee for two years. The supervisor must also periodically review his records of deserving candidates. This is unlikely because of the amount of transfers for both the hourly and the salary staff. If the supervisor requests a pin then the employee's attendance record is reviewed by the Attendance Control Administrator. If the records show good attendance then a pin is ordered and issued. The cycle may take three years for the employee to receive proper recognition.

The basic idea of a recognition award is good. The flaw with this award is the effort required and lack of a timely response. Presently if the employee has perfect attendance for 450 days and then takes a day off, the recognition is forfeited. Many employees may feel that this award is too difficult to attain, so why try. This award could be structured to a one year pin that becomes cumulative. That way the award is not out of reach and the employees that do accumulate several pins can have a one year, two year, three year, etc. pin instead of three one year pins. The program could be computerized, thus eliminating the need for dual attendance records and manually requesting an attendance review. This approach is better for several reasons. First,

it is inexpensive relative to another type of recognition reward such as the cash bonus. The cost of pins are insignificant to a multi-billion dollar company. Also, the mechanics of the system are in place today. The Payroll and Human Resource Departments already have the attendance of each individual on their Honeywell computer. This is how the appropriate attendance discipline is automatically printed on a daily basis. If the computer is given the correct command, it has the ability to sort out the employees that fit specific parameters (such as perfect attendance for a year). Using a macro command this can be set up to run on a monthly, weekly or even daily basis. Secondly, recognition rewards do more than just motivate some employees to change. Recognition rewards reinforce the behavior that the company is looking for. If a good employee comes to work every day, that behavior needs to be reinforced if the company wants it to continue. Third, many scientists believe that money is not a motivator. This is why desired behavior must be reinforced in some other manner than with a cash bonus.

Bonus pay is presently given out as an attendance award. As discussed earlier, if an employee has a perfect attendance record for each quarter of the calender year, a $50 bonus is awarded to that employee. If the employee has a perfect record for all four quarters, an additional $300 is awarded. This program was started in 1986. A study done by the Labor Relations Department has shown that the money expended on this bonus award has not directly resulted in

significant increased attendance. It appears that the employees that had perfect attendance prior to implementing the program now receive extra money for the same attendance habits. The employees that almost had perfect attendance now ask for prior permission to take a day off. If the day is previously excused then it doesn't count against the employee. Therefore this employee also is now paid for basically the same attendance habits exhibited before implementing the program. An employee with poor attendance habits tend to maintain those habits. Therefore the numbers of employees that this program has actually affected is minimal. The bonus system will have to stay in place until the next contract is negotiated with the union. At that time the company could try to eliminate the program or limit the compensation only to those with true perfect attendance (in both daily attendance and tardiness).

Another alternative to consider is a sliding pay scale for employees. This means that an employee with a poor attendance record could be paid less then another employee doing the same job with a good attendance record. As the attendance improves so would the hourly compensation. One method to accomplish this would be to base the standard wage on the expected attendance. This years pay would be based on last years attendance. If the company had a 230 work day year and the acceptable rate of absenteeism was 3.5%, then the company would expect an employee to be absent 8 days per year. If the employee was absent 8 full days last year then

that employee draws the full hourly wage. Presently that compensation is $14.05 per hour. If the employee had perfect attendance, then an additional sum of $0.25 could be added to the hourly wage. This $.25 is only $2.00 per day for 230 days, or $460.00 per year. If the absentee rate exceeded 3.5% then the wage rate the following year would be lower. The wage rate could float from $14.30 per hour for perfect attendance down to $11.73 per hour for the chronic absentees. This lower figure is 16.5% below the base rate for expected attendance. In order to be considered a chronic absentee problem the employee's absentee rate must exceed 20%, which is the expected rate of 3.5% plus the additional lower figure of 16.5%. This type of attendance program is self perpetuating. The employees earning below standard pay for the employees earning above standard. If all employees earned above standard wage, then the other costs would be reduced. These costs being the absentee pool along with all the other costs discussed in earlier sections.

Attendance awards could be attached to attendance performance by using a point system. The employee may earn attendance points for each month of perfect attendance. These points could then be cashed in for extra benefits. Additional benefits for employees would need to be well thought out. For example, a company sponsored membership at a health club may not mean as much as an award to one person as opposed to the next. Theater tickets, gift certificates, club memberships and other such awards have different values

to different employee. Company hats and T-shirts may even bring an award winner ridicule from other union members. Because this is an automobile manufacturer that is being analyzed, it would be appropriate for the award to be automotive related.

The company could consider allowing the employee to accumulate vacation and unused sick days. These days could be used all in a lump at the end of the employees career just prior to retirement or voluntary termination. Another way these accumulated days could be used, is to discount the purchase of a new Chrysler vehicle by the value of the unused vacation and sick days. These two ideas benefit both the employee and the company.

Peer Pressure

Instead of giving awards to individuals for their performance, group awards for group performance may instill the use of peer pressure. Peer groups can utilize the informal organization to exert influence on the other hourly workers.

Discipline

The discipline procedure is negotiated with the union when the contract is renewed. Therefore it is impractical to suggest either increasing or decreasing the severity of the discipline issued. The important factor with discipline is consistency. Each area supervisor must enforce the union contract in the same manner.

Quality of Work Life

The quality of work life directly affects the absentee rate. If the employer can improve the working environment of the workers then absenteeism will diminish. This can be done by using several different methods or a combination of methods. Some of the methods used to improve the quality of work life include, but are not limited to; participation in decision making, increased career opportunities, cross training, improved working environment, recognition, shared trust and team building. The implementation of a program such as this would take time and cooperation. Results may not be immediately apparent, therefore upper management must make a commitment to finish any program it starts. Without this commitment the hourly workers will be distrustful of any effort to improve the quality of work life.

Starting the improvement process must be done with thought and moderation. The company doesn't want to make any commitments it can't live up to or make any precedents that may later come back and haunt it. Starting these improvements in so many different departments and areas requires coordination. One section of the employee population can not be treated any better or worse than another. It is for this reason that changes must come slowly and deliberately. Although different segments of the employee population have different wants and values, the improvements must be perceived as being equal.

The last alternative is to do nothing. The company may

feel that the situation is under control and that efforts in reducing absenteeism may not be cost beneficial. There is a point of diminishing returns that may be reached. The cold hard facts may show that spending "x" dollars to reduce the costs of absenteeism does not pay for itself, even at a 100% effective rate.

REDUCE NEGATIVE EFFECTS

The first negative effect of absenteeism is safety. All employees should be trained in safety awareness and how their absenteeism could potentially harm themselves, their co-workers or the customer. In addition the employees used as part of the absentee pool or in the part time program, need additional training on the jobs in their area. This will familiarize them with the hazards they may encounter and are not normally part of the day to day routine.

The second thing that absenteeism touches is the quality of the product. The effects can be reduced by minimizing changes during peak absentee periods. This can be done by making model year product changes just after the peak vacations and absenteeism weeks.

Generally the focal point of absenteeism tends to be the third area of interest - cost. The best way to reduce the cost of absenteeism is to eliminate it altogether. Since this is not a practical solution the next best solution must be considered. The quantity of manpower in the absentee pool must be maintained at a level high enough to compensate for

the highest absentee rate. Yet excess manpower not required results in wasted money. Therefore it is this balance between having not enough or too many people in the absentee pool that is the answer to minimizing costs.

This can be accomplished in one of three ways. First, the absentee pool can be made up of full time employees. The number of employees would be determined by the number of employees absent in the previous week. Shortages could be made up by non-critical employees such as janitors. Secondly, the pool size could be calculated statistically. For instance, the same week's absentee rate could be averaged over a period of several years. By taking three standard deviations of the average, a pool size will be determined that should be able to handle 99.7% of all incidences of absenteeism. This method may prove to be extremely costly because of the excess manpower employed and not used a great deal of time. Another alternative would be to have a full time absentee pool, but base the quantity of manpower on an average absentee rate from a history of Tuesday, Wednesday and Thursday's. This absentee pool could then be supplemented on Monday's and Friday's using part-time employees. Casual absenteeism is higher on both Monday and Friday.

The contract with the union allows the company to schedule up to two weeks downtime for model year change over and force the employees to use up to two weeks of their vacation. Proper analysis should determine historically

which two weeks of the year have the highest absentee rate. Presently the employees that do not have enough seniority to take their vacations during peak times, have a tendency to experience casual absenteeism. This historically happens during the summer months when the weather is good and the children are out of school. Model year changes are generally made during the summer months to accommodate shipping of vehicle to dealerships before October. The long lead time required dictates a summer changeover. Proper timing of model year change-overs and the down-time associated with it will reduce casual absenteeism during peak absentee periods.

SECTION VI

THE RESOLUTION

There are no easy answers on how to best handle casual absenteeism. It takes a variety of innovations to both reduce the absentee rate along with the consequences of the residual absenteeism. Large scale changes that have an impact on so many employees must be taken slowly and thoughtfully.

In managing a factory that employs in excess of 2300 line workers, it is not practical to believe that absenteeism can be eliminated all together. Therefore it is necessary to determine what is an exceptable rate of absenteeism. Along with this, a decision must be made on how that rate of absenteeism will be calculated and who will be responsible for tracking changes and directing improvements. An exceptable rate of absenteeism gives the managers a goal to measure progress. How absenteeism is measured ensures continuity in discussions and decisions. Acceptance of responsibility narrows down the latitude of consistent application of rules and direction.

Acceptable Rate

The first issue to settle is to determine the acceptable rate of casual absenteeism. The Human Resource Department at the Belvidere Assembly Plant has determined that a target of 3.8% code #1 absenteeism is an acceptable

goal toward which to strive. This rate does not readily illustrate the possible impact that improvements can have on the plant as a whole. In 1988 the code #1 absentee rate was 3.825%. This means that this assembly plant is satisfied with an improvement of only 0.00657% over the previous year. The Budget Department projected that the 1989 cost of absenteeism would be $2,875,000. I recommend a 10% improvement goal over the 1988 performance. This would give the plant a goal of 3.4425% or a savings of $287,500. Performance such as this was achieved for 13 of the first 26 weeks of 1989. That proves that is an attainable goal. Minor changes in the absentee procedure should improve the rate to a point that will achieve the goal more times than not. Although 3.4% is the median average of the absentee severity, it is not the same as the mean average. Reducing the mean average over a long period has a greater effect than reducing the median average over a short period of time.

Measurement

The second issue is to define what is included in the code #1 category. The previous definition concluded that code #1 absenteeism was casual and unplanned. However, this definition must be further defined in regards to severity or frequency. Absentee severity is the actual time lost due to absenteeism. Absentee frequency refers to the number of incidents of absenteeism. If one individual is absent for

one eight hour shift, the quality and schedule may not be as negatively impacted as if sixteen people were each a half hour late. The actual code #1 absenteeism is unchanged, but the problems caused by the different situations are not the same. The frequency of casual absenteeism causes many more problems then the severity of the absenteeism. This is because once a line operation is covered by another employee, it doesn't matter when the absent worker returns. The major problems arise when the frequency exceeds the available absentee pool of extra workers. The severity of absenteeism is calculated as a percentage in the following manner:

$$\% \text{ ABSENT} = \frac{\text{HOURS ABSENT}}{\text{STRAIGHT TIME HOURS WORKED} + \text{HOURS ABSENT}}$$

The severity of absenteeism information is used as the basis of comparisons and problem discussions. The company's discipline and attendance incentives are based on frequency. The workforce size decisions are based on severity. I propose that the company also measure the frequency of absenteeism. Each department manager must be aware of his code #1 absenteeism in terms of both severity and frequency. This helps the manager to pin point the problem areas along with the reasons. Once the manager is made aware that the department is not meeting the prescribed goals, an action plan can be developed. Each action plan would differ depending on the department's circumstances. A department manager would handle problems with the absentee frequency

rate in a different manner than with the absentee severity rate. One reason being because of disciplinary restrictions in the present union contract. Each department has its own unique problems and therefore must be handled in its own way. Yet there must be consistency throughout the factory.

Responsibility

Presently the Labor Relations Supervisor is the designated watchdog for absenteeism. As stated by the Labor Relations Supervisor, Bob Kertz, in his letter of August 31,1989, the overall average code #1 absentee severity rate for 1989 is on the rise at 4.028%. He then requests that all parties involved review their procedures to ensure that absenteeism is being properly handled. Memos such as this go largely unnoticed because it is not specific. The problem was evident in March when the frequency trend exceeded the target seven weeks in a row. The problem was not addressed until the end of August. The memo does not target any specific area or department that has shown a negative change. Authority and responsibility are not mentioned in the memo. The designated watchdog for absenteeism must address the problem individually with each department manager. Responsibility for poor absenteeism must be specifically addressed to the individual that has the authority to make changes. Each department manager must know what the goals are, what the present situation is, what is expected and specifically how to impact the bottom line.

A committee made up from different departments needs to be established in order to properly track the progress and possibly redirect the future. The Labor Relations Supervisor should be the chairperson for this committee. This group of individuals should have the responsibility of directing the use and size of the full time absentee pool and the number of part time employees required. Along with responsibility must go the authority to make these changes. Responsibility without authority is useless. Each department representative can gather pertinent information from their own department. Then the committee can review all the information to make an educated decision based on facts. It should be the job of the committee to balance the special interests of all involved for the overall good of the company in terms of cost, quality and build schedule. A weekly routine meeting at the same time and place would be in order. This helps to create a regular cycle to follow.

Reduce the Rate

I propose that the rate of absenteeism can be reduced by addressing the severity and the frequency separately. Presently Chrysler measures the severity of absenteeism then minimally tries to reduce the rate by implementing programs designed to combat absentee frequency. For example the absentee rate is based on lost man-hours. Yet the discipline and bonus is based on the frequency of attendance, even if the employee is late. The severity of absenteeism is a

combination of being tardy for work and not showing up at all. Therefore, an absentee frequency problem is a sub-set of the severity problem. This is why I will deal with frequency first.

The frequency of absenteeism can be reduced in various ways. The first place to start is with the existing disciplinary procedure. Management has failed to uniformly enforce discipline across the plant in its various departments. Therefore the supervisor should loose the authority to cancel discipline. This will ensure that action is taken in the same manner throughout the plant in accordance with the union contract. If an employee has extenuating circumstances, the union official always has the right to grieve the discipline. Handling it in this way removes supervisor favoritism.

Generally the day before a holiday weekend has a higher rate of absenteeism than normal. This can be brought back in line at contract time. When the contract with the U.A.W. is negotiated, management needs some language in the contract to specify employee attendance both before and after a holiday. The employee should have to work a full shift the day before and the day after a holiday in order to get paid for the holiday. The only exception would be if the company sent the employee home because of cost reduction reasons.

Model year change over is almost always done in the summer months and so is the peak vacation period and absenteeism. By changing model years in the summer the

factory has plenty of time to fill the dealership showrooms with vehicles before their introduction in October. The production schedule is based on parts availability and market demands. If planned far enough in advance the parts availability can be modified with little or no trouble. With a sales bank of 45 to 60 days the effect of moving the changeover is minimal. Therefore, management should plan to shut the plant down for two weeks each summer for the model change. The two weeks selected should be historically the highest in absenteeism and vacations. The present union contract allows the company to force the employees to use up to two weeks of their vacation during a model change. This allows all the employees the opportunity to have time off in the summer, not just the high seniority employees.

The two proposed resolutions just presented are intended to target the absentee frequency rate by using consistent discipline procedures and by stipulating attendance requirements at holiday time. The following two proposals are aimed at reducing the absentee severity rate.

Presently employees are eligible for a financial bonus for perfect attendance. They can also earn a 500 day pin for perfect attendance. Perfect attendance is defined as either coming in to work or having been previously excused for the absence. Tardiness is not a factor. Being tardy contributes to the absentee severity rate. I propose that the financial bonus be eliminated when the next contract with the union is negotiated. There is no evidence to show that this bonus

even pays for itself. I also propose that the traditional 500 day pin be eliminated and be replaced with a cumulative attendance pin. This pin would be issued to employees with perfect attendance for one year. Being tardy would void eligibility. This pin would be cumulative in nature. An employee could earn a 1 year, 2 year, 3 year etc. pin. Each year of perfect attendance the employee would receive the next pin in progression. It is important that this plan be programed into the payroll computer for ease of administration and accuracy.

Each employee is allowed so many sick days and vacation days per year depending upon their corporate seniority. If this time is not used, the employee is paid for the unused time in the month of May. The day following the distribution of these checks is usually followed by a day of high absenteeism. I propose that the company offer the employees the option to accumulate leave time over a period of years, for credit toward early retirement or credit toward the purchase of a new Chrysler vehicle. The employees will have something additional vested in the company and more to look forward to at retirement.

Minimizing the Effects

The best way to prevent safety problems is through proper training. The company is obligated to ensure that the work place is safe and free from needless hazards. This can be accomplished through safety awareness programs. These

programs are generally designed for the operator that is performing the same duties every day. I propose that Chrysler take that idea to the next step, focus on the operator that replaces another employee that is absent. This has several benefits. First, the replacement worker can look at the situation from a new perspective. This employee may be able to observe safety hazards that have gone unnoticed up till then. These hazards can then be corrected. Second, the replacement worker will be better qualified to perform the assigned duties if the process and situation is fully understood. Thirdly, the properly trained worker is less likely to be a safety hazard to himself or to other people in the vicinity.

Marketing introduction dates are traditionally in the month of October for the auto industry. Therefore it is imperative to initiate model year changes in the summer months during a period of high vacations and absenteeism. The negative effects that absenteeism has on quality will be reduced by scheduling the downtime and peak absenteeism simultaneously.

Most people think of excess costs when absenteeism is mentioned. This is by far the most visible side effect of absenteeism. An adequate absentee pool size is required to ensure that the production line does not stop due to the lack of manpower. Down time on an assembly line can be extremely costly, sometimes as high as $40,000 per hour. On the other hand, keeping excess manpower on hand just in case

it may be needed can also be extremely costly. Therefore it is necessary to find a way to balance the cost of excess manpower with the possibility of the cost of downtime. This is definitely the responsibility of the previously mentioned committee. The idea of having only a full time pool and supplementing it with janitors and other non-critical operations is not the best choice. This shows little planning and will cause too many other problems. These replacement workers will become resentful because of being taken from an easier job and temporarily given a harder task. This resentment will be evident in the quality of the final product. Also the replacement worker's tasks will be left undone and most likely completed over the weekend on overtime. That leaves two alternatives to calculate the absentee pool size. For purposes of discussion the following number or employees absent will be presumed: Monday-100, Tuesday-84, Wednesday-74, Thursday-92 and Friday-110. The total workforce size is 2300 people. Calculating the absentee pool for size using the average plus three standard deviations and then carrying that many people on the payroll would be a waste of money. The factory would be manned up for the worst possible scenario for the entire week. Since the Monday and Friday absentee rates are the worst, the excess manpower would definitely be wasted on Tuesdays through Thursdays. On a five day week the average absenteeism is 92 people per day or 4%. By adding three standard deviations of 14 each, the absentee pool would

require 134 people. The following would be the total wasted manpower; Monday-34, Tuesday-50, Wednesday-60, Thursday-42, Friday-24. That totals 1680 wasted man-hours. I recommend a balance between a full time absentee pool of workers and a part time pool of workers. The full time pool size should be based on the historical needs of production on Tuesday, Wednesday and Thursday. The Tuesday-Wednesday-Thursday absentee average is 83 people per day. By adding three standard deviations of 9 the full time pool size would be 110 employees. Part time employees can supplement the absentee pool on Mondays and Fridays. On Monday and Friday the difference between the full time pool and the need of 134 employees would be brought in to assist production. This helps to minimize the employment costs and maximize the required manpower coverage. Using this method the excess manpower would be; Monday-34, Tuesday-26, Wednesday-36, Thursday-18 and Friday-24. That totals 1104 man-hours wasted. The costs of absenteeism can not be totally eliminated, but can be greatly reduced. The size of both the full time and part time pool should be controlled by the committee.

Continuing Cycle

Controlling absenteeism is a team effort. It takes a blend of different departmental disciplines to find the correct balance of control. Human Resources must work together with Safety, Quality, Finance and Production to

find a common ground that will satisfy each department's requirements. I do not presume to suggest that absenteeism will be totally eliminated. That is why I feel that it needs to be treated as an on-going problem. Once a goal is set and reached, a new goal must be set. This helps to maintain the intensity that is needed to keep this menace under control.

Unacceptable Alternatives

The first unacceptable alternative was to pursue changes in the quality of work life. Although the idea may have its merits, justifying specific changes could not be quantified. In the working environment of a line worker it is impractical to believe that participation in decision making and increased career opportunities is a realistic approach to increasing the quality of work life. Method such as making improvements to the working environment have no direct effect on the absentee rate and can not be justified.

Attendance bonus pay is the next alternative that is not plausible as a way to reduce absenteeism. There is no hard evidence to prove that spending over a million dollars a year on this program even recoups the costs of it or in any other way justifies the existence of such a program. The program run by the company is subject to favoritism and virtually has no guardian, only an administrator. This program should be eliminated the first opportunity that the company gets.

The sliding pay scale was the third alternative not

accepted. This is largely due to the administrative complexity. Even though much of this could eventually be automated, the system is not presently in place to handle it. The cost and confusion of setting up a system such as this would be enormous. The union would not favor the idea because it is contrary to the equal work equal pay idea. In addition the union dues are based on the employees hourly wage. Wages equal to two hour per month are deducted from their pay to cover union dues. If the hourly wage declines, so does the monthly dues.

An attendance award using points and a variety of rewards would be next to impossible to administer. When dealing with over 2300 people an administrator can not hope to please everyone. Not only would normal human error be a factor, but people's opinion of the reward's utility would be under constant scrutiny. Management needs a program to address absenteeism effectively, quantitatively and economically. This system would could not be any of these.

The fifth alternative not accepted was using peer pressure to the company's advantage. This is alternative would pit one union member against another. This is not only against the contract be it would also cause numerous personnel problems.

The last alternative was to do nothing and to accept the present situation as the best. Upon investigation it becomes clear that much money can be saved by reducing absenteeism in the factory. It is then management's

obligation to the stockholders to curb unnecessary expenses to optimize profits.