Actual output level, under ordinary circumstances, is always below the attainable maximum. Various schemes[125] were developed to set, by means of financial incentives, the "level of aspiration" closer to the working capacity. The effects of three systems of pay—time rate, bonus rate, and piece rate—are reflected in Figure 18. However, output is not the only criterion of "efficient" work conditions. It is significant that the frequency of *complaints* for comparable periods of work rose steadily from 2.9 under the time-rate system of payment to 7.1 under the bonus-rate and 10.8 under the piece-rate. These findings are relevant for consideration of the effectiveness of various systems of pay in reference to long-term efficiency.

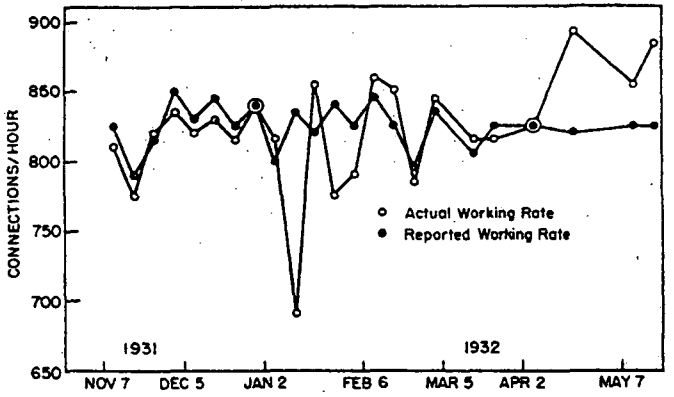


FIG. 19. Actual *vs.* reported average hourly output per week—wireman No. 6.[126]

Even the technically perfect system of wage incentives may become completely ineffective if it clashes with the more basic interests of the workers. This fact was brought out very clearly by research at the Hawthorne plant of Western Electric Company in Chicago.[125] In the wiring-observation room the reported output rates were much more regular than the actual rates of output. Figure 19 indicates that the worker attempted to maintain a steady level of output and to achieve this goal reported output smaller or greater than the actual. The ideal of "straight-line" output curves was shared by other workers. They were afraid that large variations might cause trouble: a high output would indicate that they were capable of performing better than they do, whereas a low output might bring unfavorable comments from the supervisor. The work record given in Figure 19 is a typical industrial sample of social or socialized behavior, which is defined as behavior in accordance with the expectations and sentiments of some other person or group of persons.[127]

[126] F. J. Roethlisberger and J. Dickson, *Management and the Worker*. Harvard Univ. Press, Cambridge, Mass., 1940.

[127] F. J. Roethlisberger, *Management and Morale*. Harvard Univ. Press, Cambridge, Mass., 1941.

TABLE 23

Check List of Measures to Reduce Absenteeism[128]

I. HEALTH AND SAFETY

1. Pre-employment medical examinations
2. Prevention of respiratory infections
3. Convenient lunch facilities with well-balanced foods
4. Sufficient time allowance for meals
5. Nutrition information for employees' families
6. Proper ventilation
7. Proper sanitation
8. Plant medical supervision
9. Plant nurses
10. Adequate safety devices and instruction
11. Adjustment of work schedules to prevent cumulative fatigue
12. Check-up of reported sick absences

II. MORALE

13. Appraisal of applicants' aptitudes and responsibility
14. Pre-employment explanation of rules and relation to war effort
15. Information about relation of individual job to war
16. Instruction of foremen on methods of maintaining morale
17. Use of visitors from armed forces
18. Information about ex-employees in service
19. Monetary incentives
20. Incentives other than monetary
21. Plant posters and other exhibits

III. ADJUSTMENTS FOR PERSONAL OR FAMILY NEEDS

22. Housing arrangements
23. Transportation arrangements
24. Time off for attending to household or personal duties

IV. CO-OPERATION

25. With labor through special committees
26. With community as to (a) housing
27. (b) transportation
28. (c) day nurseries
29. (d) store and shop hours
30. (e) health program

Absenteeism, especially in the sense of nonauthorized, nonsickness absences, is one index of low morale. Reducing absences from work to the minimum is a part of the complex task of maintaining production efficiency and has to be approached from the point of view of over-all industrial administration; no simple panacea can be hoped for. The Industrial Relations Department of the National Association of Manufacturers has prepared an extensive list of items related to absenteeism (Table 23). The items reflect war conditions, but the list should be helpful in pointing out the complexity of the problem and in emphasizing the human relations aspects of it.[128]

Absenteeism, both involving and not involving sickness, is in general larger for women than for men. In fourteen companies studied during the year 1941 there were 83.1 absences per 1000 men and 104.6 per 1000 women; only absences due to sickness

[128] *Absenteeism: Realities and Remedies*. Natl. Assoc. Mfrs., 1945.