4-1981

Staff Incentive Programs: The Effects of Time Off and Monetary Compensation on Professional Service Delivery

Sharon L. Surratt
Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations

Part of the Psychology Commons

Recommended Citation
https://scholarworks.wmich.edu/dissertations/2563

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.
STAFF INCENTIVE PROGRAMS:
THE EFFECTS OF TIME OFF AND MONETARY COMPENSATION
ON PROFESSIONAL SERVICE DELIVERY

by

Sharon L. Surratt

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Doctor of Philosophy
Department of Psychology

Western Michigan University
Kalamazoo, Michigan
April, 1981

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
The effects of two staff incentive procedures, time off from work and additional monetary compensation in increasing the amount of time that professional counselors spent in direct service (client oriented) activities were compared. The participation of six outpatient counselors, three male and three female, enabled the assessment of the differential impact of these incentive procedures by sex of the counselor. Throughout the study, which lasted 30 weeks, daily records were kept on the amount of time counseling staff engaged in 18 predefined categories of staff behavior. Using a repeated measures design, time off from work and/or additional monetary compensation were contingent upon increased service delivery in categories relating to direct client contact. When given a choice, subjects consistently chose money over time off. Time off had no significant impact upon the number of direct service units delivered by the counselors. While it had no effect upon the output of the female group of counselors, additional monetary compensation produced a dramatic escalation in the units of service delivered by the male counselors. Agency practices regarding time monitoring were beyond the experimenter's control and may have contributed to the ineffectiveness of the time off component in the present study. Additional monetary compensation linked closely with counselor performance was found to be an effective, economical procedure to generate significant increases in counselor output, without measurable effect on client satisfaction.
ACKNOWLEDGEMENTS

Without the financial assistance of the Sage Foundation this research would not have been completed. To Mr. Robert Sage, I owe more than thanks. I publicly acknowledge my admiration and respect for this man who has devoted his time, efforts and financial resources to making "quality of life" a reality for the alcoholic and his/her family.

Throughout my doctoral studies and the preparation of this dissertation, I have benefited from the encouragement and support of my husband, Paul, and my children. Their personal sacrifices have been many, but were voluntarily and enthusiastically made. To my friends and staff of the Substance Abuse Coordinating Agency of District Health Department No. 1, I express my gratitude for support and patience. For her many personal hours of assistance in typing and editing, I owe special thanks to Linda McCully. And to Professors Malcolm Robertson, Frederick Gault, Subhash Sonnad and Roger Ulrich, I offer my sincere gratitude for encouragement, criticism, approval and continuing support, despite the problems created by long distance communication.

Sharon L. Surratt
INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.

2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.

4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.

5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University
Microfilms
International
300 N. ZEEB ROAD, ANN ARBOR, MI 48106
18 BEDFORD ROW, LONDON WC1R 4EJ, ENGLAND

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ✓.

1. Glossy photographs or pages
2. Colored illustrations, paper or print
3. Photographs with dark background
4. Illustrations are poor copy
5. Pages with black marks, not original copy
6. Print shows through as there is text on both sides of page
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements
9. Tightly bound copy with print lost in spine
10. Computer printout pages with indistinct print
11. Page(s) ___________ lacking when material received, and not available from school or author.
12. Page(s) ___________ seem to be missing in numbering only as text follows.
13. Two pages numbered ___________. Text follows.
14. Curling and wrinkled pages
15. Other
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>ii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES AND FIGURES</td>
<td>v</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Feedback</td>
<td>3</td>
</tr>
<tr>
<td>Other Intervention Strategies</td>
<td>7</td>
</tr>
<tr>
<td>Work Schedule Manipulations</td>
<td>9</td>
</tr>
<tr>
<td>Monetary Compensation</td>
<td>11</td>
</tr>
<tr>
<td>METHOD</td>
<td>20</td>
</tr>
<tr>
<td>Subjects and Setting</td>
<td>20</td>
</tr>
<tr>
<td>Observation of Staff Behavior</td>
<td>20</td>
</tr>
<tr>
<td>Procedure</td>
<td>23</td>
</tr>
<tr>
<td>Baseline (Phase I)</td>
<td>23</td>
</tr>
<tr>
<td>Time Off (Phase II)</td>
<td>24</td>
</tr>
<tr>
<td>Time Off or Monetary Compensation (Phase III)</td>
<td>25</td>
</tr>
<tr>
<td>Time Off (Phase IV)</td>
<td>26</td>
</tr>
<tr>
<td>Baseline (Phase V)</td>
<td>26</td>
</tr>
<tr>
<td>Experimental Design</td>
<td>26</td>
</tr>
<tr>
<td>RESULTS</td>
<td>27</td>
</tr>
<tr>
<td>Validation</td>
<td>28</td>
</tr>
<tr>
<td>Treatments</td>
<td>29</td>
</tr>
<tr>
<td>Other Variables</td>
<td>32</td>
</tr>
<tr>
<td>Individual Data</td>
<td>35</td>
</tr>
<tr>
<td>Time</td>
<td>36</td>
</tr>
<tr>
<td>Client Feedback</td>
<td>37</td>
</tr>
</tbody>
</table>

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
LIST OF TABLES AND FIGURES

Table
1. Establishment of Individual Minimum Service Units ........................................ 25
2. Per Cent (%) of Validated Service Entries .................................................. 28
3. Per Cent (%) of Validator Agreement ............................................................ 29
4. Group Means of Direct Service (DS) Units Delivered ...................................... 30
5. Repeated Measures Analysis of Variance Table ............................................. 30
6. Phase-to-Phase Comparison of Direct Service Delivery (Males) .............................. 31
7. Comparison of Group Service Means by Phases ............................................ 34
8. Number of Weeks Subjects Exceeded Individual Minimum Service Criterion ........... 35
9. Individual Consequences by Phases ................................................................... 36
10. Group Means of Hours in Office ....................................................................... 36

Figure
1. Weekly mean number of direct service units delivered by male and female groups of counselors .............................................. 33

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
INTRODUCTION

In recent years there has been increased awareness of the work environment, the worker and the importance of productivity in business and industry. Present inflationary patterns, expectations of rising worker benefits and the impact of foreign products on the American economy have mandated a more efficient and productive work force. Economists of the 80's are actively citing productivity as one of several variables that must be addressed in order to curb inflation.

Quantitative tools to assess and improve technical and organizational efficiency have been developed. However, advances within the human side of organizational effectiveness (absenteeism, tardiness, turnover, wastage, shrinkage, quantity and quality control) have not kept pace with the technical advances made in management practice.

The impact of one of industry's largest problems, absenteeism, was addressed in a 1976 article by Luthans and Martinko. The authors stated that absence benefits cost industry approximately $15 billion a year and that the Gross National Product (GNP) could increase $10 billion a year. The contributions of all aspects of the human work force to organizational productivity should not be minimized.

Much effort has been expended by a generation of theorists, researchers and management practitioners in search of a method for reliably converting low-producing individuals or groups into high producers. In the last decade there has been a shift from the theoretical and speculative approaches concerning motivation of the human work force to actual applications within work organizations. A partial enumeration of these applied techniques found in management

1.
journals includes job enrichment, job enlargement, variations in compensation plans, participative management, team development, management by objectives, autonomous leadership, adjustments in the work week and behavior modification.

A large body of theory and empirical research testing the utility of behavioral principles as they apply to adult work behavior has appeared within the past 15 years. Nord (1969) presented the first definitively supportive article in favor of the extension of the operant model into the area of work behavior. Although Skinner proposed the generalizability of the theory into the area of adult work behavior, it was not until the 1970's that laboratory experimentation (Cherrington, Reitz and Scott, 1971; Schmitt, 1969; Yukl, Wexley and Seymore, 1972; Scott and Cherrington, 1974) and field studies (Latham, Yukl and Scott, 1974; Pedalino and Gamboa, 1974; Beatty and Schneier, 1972; Iwata, Bailey, Brown, Foshee and Alpern, 1976) lending substantial support to the theory emerged.

These studies and other empirical inquiries have met with optimistic enthusiasm (Luthans and White, 1971; Luthans and Kreitner, 1974; Schneier, 1974) and opposition (Argyris, 1971; Whyte, 1972; Locke, 1977, 1979). According to Mawhinney (1975), utilization of the operant paradigm has resulted in some problems with interpretation and evaluation. However, the techniques derived from behavioral principles have demonstrated appropriate, yet reserved, application to highly controlled work settings.

Efforts to change the frequency, intensity or duration of a worker's behavior through the systematic alteration of the job environment are part of the behavior modification literature. The behavior modification literature in business and industry refers most frequently to the use of feedback
and money as mechanisms to facilitate change, although other intervention strategies have been utilized.

Feedback

Periodic evaluation or feedback, if conveyed to the employee, may have an impact upon increasing productivity. Wroten (1977) noted that, with mental health workers, information or feedback relating to past job activities did result in productivity improvement. The Management Information System used by Wroten to document ongoing staff activities is one example of several accountability measures used by many firms or organizations. Most typically, such systems are used to track historical actions, trends or services in a managerial fashion. Wroten augmented the typical uses of the management information system with a feedback function to improve productivity in a short term fashion. Other authors (Villareal, 1977; Kearney, 1976; Monczka and Reif, 1973) have suggested the utility of feedback or performance assessment/appraisals in addressing employee productivity. Chung and Vickery (1976) discuss the motivational nature of feedback or knowledge of results and review the experimental literature.

Use of frequent feedback is described in two articles, "Performance Audit, Feedback and Positive Reinforcement" (1972) and "At Emery Air Freight: Positive Reinforcement Boosts Performance" (1973), which detail the success story of Emery Air Freight. Through a "performance audit", comparable to the quantitative baseline, Emery determined that appropriate utilization of air freight containers occurred 45% of the time. By using continuous feedback (daily sheets filled out by employees), praise and recognition for performance meeting pre-established standards, Emery Air Freight increased container utilization to 95% at an annual savings of
$650,000. Through praise and recognition, the company also increased sales and customer service performance, thereby, resulting in a savings of $3,000,000 over the course of three years.

With a similar intervention strategy - daily feedback forms and reinforcement from supervisors, Schneier, Pernick and Bryant (1979) were able to increase the level of productivity in the payroll and travel units of a federal agency. Following the identification of 11 behaviors to change and collection of baseline data, the authors implemented feedback forms and verbal feedback from supervisors. The end result was an improvement in the identified behaviors (+77% in payroll and +61% in travel) and annual savings of $112,000 and $35,000 in the respective departments.

The traditional, managerial approach to attendance and punctuality problems has been disciplinary. Johnson and Peterson (1975) review the effects of the typical disciplinary approach, as well as the descriptive approach of identifying factors associated with absenteeism, and find both attempts at control dysfunctional. Public recognition and/or feedback for appropriate attendance and punctuality have been used in conjunction with lottery systems (Nord, 1970; Wallin and Johnson, 1976). Several studies have utilized only public recognition or feedback to control attendance at work. In "Where Skinner's Theories Work" (1972), reference is made to the Michigan Bell Telephone Company experiment. Application of a weekly attendance recognition procedure for 38 telephone operators with 11% absenteeism resulted in a decrease in absenteeism to 6.5%. Expansion of the program to 1,000 operators resulted in a drop in absenteeism from 7.5% to 4.5%. Favell (1973) was able to impact favorably on punctual attendance
at staff meetings by publicly distributing the arrival time of each staff member.

Feedback, as a stimulus event, has been used in other studies. Cooper, Thompson and Baer (1970) demonstrated that feedback to teachers regarding the frequency with which they attended to appropriate child behavior could increase the frequency of that particular behavior. Pommer and Stredrick (1974) tried to modify task completion and performance of new procedures using houseparents in a residential treatment facility as subjects. They found either public posting of feedback or job slips worth $1.00 each for new procedures was effective in maintaining performance rates higher than baseline. When both independent variables were applied together, they sustained better performance than any singular manipulation. Panyan, Boozer and Morris (1970) used feedback sheets to maintain the daily use of operant training methods by attendants with the retarded. The authors indicated that feedback regarding the percentage of training sessions conducted in each self-help area resulted in increased performance. Welsch, Ludwig, Radker and Krapfl (1973) also used varied forms of feedback to increase the daily completion rate of behavior modification projects. In one ward of a state hospital they were able to increase the percentage of projects completed (from 61% to 97%) using a publicly posted chart listing completion rate by shift. In another ward the authors used a chart of completion listing individual attendants' names which yielded an 83% completion rate in contrast to the baseline performance of 28%. Shook (1976) compared the effects of response effort reduction (graphs with appropriate descriptions posted), instructions, group and individual feedback and
social reinforcement on the daily graphing of client behavior by part-
time therapists. Shook found that group and individual feedback through
a public notice were most effective in increasing and stabilizing the
rate of behavior. Vital components of the Total Performance System (TPS),
a systematic strategy designed to improve or maintain the performance of
an individual or an organization, are the feedback systems (Brethower,
1972).

Quilitch (1975) compared the effects of three staff management
procedures in maintaining a daily recreational activity program for
mentally retarded institutional residents. The author used three
procedures to stimulate activity: (1) a memo stressing the importance
of staff involvement with recreational activities, (2) an activities
workshop or training session in the "Why and how to" and (3) scheduling
of responsibility in combination with a feedback poster listing names
of staff leaders and the number of participant residents for the year.
While the memo and training parts of this multiple baseline design
encouraged the participation of only 3 of the 57 residents, the scheduling
and feedback phase resulted in participation by 32 of the 57 residents
with continuing involvement after the completion of the study.

Brown, Willis and Reid (in press) found that while verbal feedback
resulted in a decrease in non-job related activities, it had only a
temporary effect in increasing more desirable behaviors. The combination
of feedback plus approval statements increased the more desirable behavior
of interaction with residents. Using direct care institutional staff as
subjects and a time sampling procedure, the authors recorded staff time
spent in eight categories of behavior. Neutral feedback, such as "I
scored you as..." following time sampling was effective in reducing staff time on non-job related activities. Neutral feedback plus approval for specified behaviors (interaction or custodial stimulation) resulted in substantial redirection of staff time into desirable areas.

In addition to the above mentioned applications, performance feedback has also been useful for teachers (Cooper, Thompson and Baer, 1970), tutors (Barnard, Christopherson and Wolf, 1974), psychiatric aides (Panyan, Boozer and Morris, 1970) and nurses (Patterson, Cooke and Liberman, 1972). When used appropriately, feedback can be effective in producing desired behavior changes.

Other Intervention Strategies

The management literature does discuss the use of other intervention strategies to accomplish changes in job related behaviors (Adam and Scott, 1971; Brethower and Rummler, 1966; Wiard, 1972; Holsinger, 1972). Potentially useful applications of positive reinforcement have been offered.

Using the Premack principle as a basis for restructuring work habits, Gupton and LeBow (1971) made the opportunity to sell renewal service contracts contingent upon the sale of a warranty contract. The two telephone solicitors, serving as subjects for the study, increased warranty sales by 10% and 21% during the contingency phase of the study only to drop to zero when there were no contingencies in effect. In this case costly job analyses and management techniques/training were replaced by the observation of response rates and the institution of appropriate contingencies.

The use of a conditioned reinforcer, such as trading stamps or tokens, has been successfully tried in several institutional settings.
In two separate studies (Hollander and Plutchik, 1972; Hollander, Plutchik and Horner, 1973) psychiatric attendants were rewarded with trading stamps for completion of behavior modification tasks. Bricker, Morgan and Grabowski (1968) also found that the contingent application of a combination of reinforcers, such as trading stamps, records, positive comments, increased the amount of attendant-to-patient interaction.

Training the hard core unemployed constitutes another opportunity for the application of operant principles with the purpose of increasing the number of or amount of time devoted to job related behaviors. An early report by Hodgson and Brenner (1968), although not identified as an operant model, successfully used programmed instruction, modeling and verbal praise in affecting behavior change. O'Connor and Rappaport (1970), using positive reinforcement, were able to train ghetto blacks to pass civil service examinations, thereby, qualifying for employment for which they had not been eligible. Beatty and Schneier (1972) also suggested an operant conditioning model for the training of the hard core unemployed. Their model suggests that work behaviors be broken down into small behavioral component skills, that mastery of skill and increases in accuracy and/or speed be reinforced by a point system that can be converted into money and verbal praise, and that on-the-job procedures utilize a VR (variable ratio) schedule of reinforcement as a means of sustaining behavior. Flax and Lacks (1976) established a training program for clerk-typist employment for clients of a lower level of functioning. They too suggested the identification of specific behaviors and the use of systematic reinforcement with feedback, points and money for attendance. The results of their training program sup-
ported the use of positive reinforcement in altering dress, punctuality, speed and accuracy of work-related tasks. However, attendance at training did not increase despite use of money for transportation and babysitting. As noted previously, the productivity of large organizational systems can be dramatically altered through the systematic use of positive reinforcement (see Emery Air Freight articles).

Work Schedule Manipulations

As a reward for productivity, work schedule manipulations and/or time off from work have been overlooked. In a classic article, Howell (1971) described the potential use of time off as a reward for productivity.

Traditionally, industry has utilized time in a manner which treats all employees in a standardized fashion.... The typical view of managers and labor leaders, however, is that time is somehow different from money as an incentive and is to be considered in a fairly standard way for all employees. Even in the use of sick or vacation time, the variations in the amount of time available are not usually associated with productivity, per se, but more often with length of employment; they are regarded as fringe benefits, not as primary incentives. (p. 49)

In a discussion of the manipulation of time within an industrial setting Howell outlines several ideas:

1. "Time can perhaps be managed in most of the ways that money can." (p. 50)
2. "Time off could be used to supplement a cash bonus system for rewarding productive organizational units or could be used to supplement cash rewards for individual employee suggestions, which were demonstrated money-makers or money-savers." (p. 50)
3. "Greater variations in working hours could mean the use of plant facilities and equipment around the clock during a 6-day work week." (p. 50)
4. "An identification of positions in which employees do not need to be present at a particular place or work every day is another way in which time could be manipulated." (p. 50)

5. "Creation of more part-time employment opportunities would draw into the work force talent and human resources not currently utilized." (p. 50)

6. "Actuarial determination of how the retirement years, assuming total retirement, could be spent through the productive years would provide for a kind of sabbatical system." (p. 50)

If tied to productivity, work time has the potential to be an effective incentive. Although not empirically investigated by them, Ayllon and Azrin (1968) suggested the use of vacation time and work-shift preference. In an attempt to improve the daily care and training of multiply-handicapped retarded persons, Iwata, Bailey, Brown, Foshee and Alpern (1976) compared the effects of staff-resident assignments and a performance-based lottery system. The lottery system allowed attendants who had met weekly performance criteria to be eligible for a lottery drawing in which they could win the opportunity to rearrange days off from work. Although the staff-resident assignments did have some measurable effects upon resident treatment, the performance-based lottery system was a more effective procedure as measured by task completion and percent of time engaged in target behaviors. The particular study did not provide a reduction in staff work time per week, but rather found that a work schedule manipulation was a powerful and cost effective means of increasing productivity. The "Good Productivity Game" described by Lutzker and White-Blackburn (1979) incorporated competition between teams and use of candy or early work
termination for increased productivity of state hospital residents. While the dependent variables of sorting boards by size and on-task behavior increased slightly using feedback alone, the authors found substantial improvement using a combination of feedback and the "Good Productivity Game" which included the use of early work termination. The effect of time off alone was not discernible from the article. Although some preference studies, such as that of Nealey and Goodale (1967), indicate that industrial workers would prefer time off rather than a pay raise, there remains a lack of empirical investigation of time off as a potential reward for productivity.

Monetary Compensation

Patten (1972) defined pay as a "reward that can be used to make employees feel satisfied with their job, motivate them, gain commitment to the organization and retain them" (p. 20). Interest in money, as a motivating factor in employee performance, has been substantial on both the theoretical and applied levels. Many authors and researchers (Nord, 1970; Schneider and Olson, 1970; Skinner, 1973; Katzell and Yankelovich, 1975) agree that the current system of monetary compensation does not specifically reward work related behaviors. Rather, increases in wages or salaries are provided on the basis of factors such as length of service (tenure) or economic conditions (cost-of-living adjustments). In two separate interviews (Hall, 1972; "Conversation with B. F. Skinner", 1973) Skinner briefly discussed the motivational issue of money as it applies to work behavior:

Many people consider weekly wage a positive reinforcer. You work and you get paid. But you don't work on Monday morning for something that is going
to happen on Friday afternoon, when you get your paycheck. You work on Monday morning because there is a supervisor who can fire you if you don't work. You're actually working to avoid the loss of the standard of living maintained by that paycheck. ("Conversation with B. F. Skinner", 1973, p. 39)

Even the wages we pay are not effective as positive reinforcers. An employee does not come to work on Monday morning because he is reinforced for doing so by the money he gets at five o'clock on Friday afternoon. He'd be a fool to do that. He works on Monday to keep from being fired. The weekly salary gives him a standard of living, and as a result a supervisor who stands over him can threaten him with the loss of that standard. The whole thing looks like positive reinforcement, but it's primarily aversive control. (Hall, 1972, p. 71)

These same authors agree that financial reward systems could be modified to more fairly represent a worker's performance or contribution.

Absenteism and punctuality have been areas of employee behavior that have received experimental attention. Nord (1970) described two case histories involving a retail hardware operation and a public school system. The hardware store gave away a $25 appliance (one prize for every 25 employees) every month to employees whose names were drawn through a lottery drawing of names of persons with perfect attendance and punctuality. Every six months the prize was a color television. Through the lottery reward system the hardware operation realized a 25% decrease in absenteeism and tardiness and a 62% decrease in sick leave payments. The metropolitan public school system offered a $50 cash award to every teacher who had not been absent for the entire semester. The school system experienced a substantial increase in the percent of teachers having perfect attendance in the first several years, but found a tapering effect toward the end of the five
year period. The above two case histories were obviously not empirical investigations with a vigorous, scientific methodology. Rather, they demonstrated applied situations of successful employer approaches to work problems.

Wallin and Johnson (1976) describe a similar approach by an electronics manufacturing firm. Using a monthly lottery drawing of names of persons with perfect attendance and punctuality and a $10 cash prize plus the posting of names of persons who qualified, the organization was able to increase attendance and decrease sick leave expenses. Over a period of eleven months, the total financial benefits were $3,100 at a cost of $110 for the company.

Using a repeated measures design, Hermann, DesMontes, Dominquez, Montes and Hopkins (1973) were able to increase punctuality of six chronically late workers. The baseline performance measures reflected a range of tardiness from 9-12% and a range of number of minutes late from 1.4 minutes to 3 minutes. Implementation of a 16¢ daily bonus resulted in a 2% tardiness factor with a range of late minutes from .4 to .8 minutes.

Pedalino and Gamboa (1974) provide an empirical modification of absenteeism using five plants (one experimental plan and four control plants) associated with one large manufacturing/distribution center. In Phase I, each day a worker appeared for work on time, he/she picked a playing card. At the end of a week, the worker with the highest poker hand (actually 8 winners in a plant per week) won $20. In Phase II, the experimental program was run every other week instead of every week. The intervention strategies resulted in a net decrease in
absenteeism of 18.27%. Reinstatement of the baseline conditions resulted in a consequential increase in the absenteeism rate. While there was a significant difference between the baseline and intervention phases, there was no significant difference between Phases I and II or significant changes in the comparison groups.

Other areas of investigation described modification of specific task performance in the job setting. Using a within-subjects experimental design, Komaki, Waddell and Pearce (1977) described two experiments to improve job performance. In Experiment I, the target behaviors of two clerks in a small grocery store were defined (punctuality, customer assistance and stocking shelves), monitored and resulted in time off with pay, feedback and self-ratings. Each of the target behaviors increased under the time-sampling and modification procedure as follows: Punctuality from 50% to 90%, customer assistance from 35% to 87% and stocking shelves from 57% to 86%.

In Experiment II, the authors describe the modification of percent time spent working of a game room attendant using goal clarification and a contingent pay system based upon the percent of cleaning duties completed. In the reversal design procedure (ABAB) the dependent variable, percent time working, went from 63% to 93% to 62% and finally to 97%. In a similar game room setting, Pierce and Risley (1974) found that payment contingent upon work accomplished greatly improved (completion of nearly 100% of work assigned) the work performance of seven adolescent neighborhood youth corps aides. With teachers as subjects, Harris, Bushell, Sherman and Kane (1975) compared the effects of instructions, feedback praise and cash bonus payments on the appropriate
use of training center materials. While the instructions, feedback and praise had a positive effect on one teacher, the bonus payments were effective with all four subjects. Pritchard, deLeo and Von Bengen (1976) also noted substantial increases in performance with the addition of cash incentives in the Air Force technical training environment.

Yukl and Latham (1975) compared the effects of three schedules of reinforcement on the productivity of seedling planting crews. For each bag of trees (1,000 seedlings) planted, they provided bonuses in the following manner: (1) continuous reinforcement (CRF) group received a $2 bonus for each bag planted, (2) the variable rate group (VR-2) received a $\frac{1}{4}$ bonus contingent upon planting a bag of trees and correctly guessing the outcome of a coin toss, (3) the other variable ratio group (VR-4) picked up an $8$ incentive contingent upon planting a bag of trees and correctly guessing the outcome of two coin tosses and (4) the control group received no bonus or incentive pay. Their results indicated that the CRF condition resulted in the greatest productivity, an increase of 33%, followed by a performance increase of 18% in the VR-4 condition and a decrease of 8% in the VR-2 situation. These results contradict a previous Yukl study (Yukl, Wexley and Seymour, 1972) in which a variable ratio schedule (VR-2) generated higher rates of behavior than a continuous reinforcement schedule (CRF). The authors speculated that the decrease in performance under the VR-2 condition may have been the result of some negative reaction on the part of workers in that crew to the "gambling component". It is also apparent that this field study lacked some of the more rigorous experimental controls, a problem typical of many studies conducted in the field. Despite some interpretational
issues, the study did establish the viability of "bonuses" or incentives in increasing the productivity of marginal workers.

Patient and aide behaviors are common dependent variables in studies investigating productivity. The following studies demonstrate that "helping behavior" can be enhanced by the contingent scheduling of extrinsic reinforcers, especially money. Katz, Johnson and Gelfand (1972) studied the effects of instructions, verbal prompts and monetary reinforcement on the occurrence of psychiatric aide reinforcing behavior of patients. The baseline rate of reinforcing behavior was low - 5.6%. Instructions had little effect upon the rate of behavior while verbal prompts produced a slight increase (8%). Monetary reinforcement ($15 cash bonus) produced an abrupt increase in appropriate aide reinforcing behavior and was accompanied by improved functioning in two of the three patients with whom the aides worked. Removal of the reinforcers resulted in an eventual return of the reinforcing behavior to the baseline rate. Patterson, Griffin and Panyan (1976) also found that small amounts of money contingent upon specified performance dramatically increased the rate of daily self-help skills training sessions with the retarded population. A greater improvement in the behavior of psychotic patients was the result of the modification of patient-aide interactions, according to a study by Pomerleau, Bobrove and Smith (1973). Using a Ward Behavior Inventory, the behavior of patients was assessed two times a week. The aide assigned to the most improved patient was honored as "aide of the week" with either recognition or cash bonus. The authors found that, while feedback to aides resulted in an increase in appropriate patient behavior, the contingent cash award
to aides was the most effective mechanism for modifying patient behavior.

The above cited studies provide substantive support for the assumption that an organization's reward policies result in differential effort or productivity of employees. While many of the studies were selected because of their adherence to principles of scientific investigation, some correlational studies support the same hypothesis. Schneider and Olson (1970) compared the "effort" of 146 nurses employed in two different hospitals. Indicative of reward systems used by organizations, one hospital rewarded efforts whereas the other hospital rewarded time (more specifically tenure). The authors noted a significant difference in the efforts of the nursing staff and attributed these differences to the established organizational reward systems.

Citing a series of studies by Cherrington and his co-workers (Cherrington, Reitz and Scott, 1971; Cherrington, 1973; Scott and Cherrington, 1974) that found subjects who were rewarded did not perform better than those who were not rewarded, Fossum (1979) investigated the effects of contingent pay systems upon the performance and satisfaction of 76 subjects employed ($1.70/hour) to do coding tasks. The study was constructed with four treatment groups: high performance - bonus, high performance - no bonus, low performance - bonus, low performance - no bonus. The author found from this three hour experiment that performance contingent rewards ($1.00 bonus per hour) did not increase performance or contribute to satisfaction. This study, like many other studies, has some methodological problems. As stated by Mawhinney (1975), there is a difference between reward and reinforcer. This study exemplifies
the fact that cash bonus payments may not be generally considered to be a reinforcer. In this case, $1.00 was not sufficient. Additionally, the generalizations about the maintenance or enhancement of work behavior are difficult to prove in laboratory environments with sessions of short duration. Obviously, studies, whether they support or refute the effects of monetary awards upon performance, should be analyzed critically.

A few studies have found that differences in compensation preferences may be related to sex and the respondent. Nealey and Goodale (1967) measured employee preferences among a set of compensation options. One of their basic findings was that men showed significantly higher preferences for pay increases while women preferred more time off. While analyzing determinants of job motivation, Shapiro (1975) found that pay was more highly correlated with job motivation for males than females. Both studies support the contention that job compensation preferences do differ by sex of the employee.

Many of the field studies reported to date have been conducted within the mental health or educational organizations using aides, attendants, and teachers as subjects. An application of techniques to professional, direct service counselors could not be found. Although their primary function is the direct care of referred patients/clients, the counselors' activities may be diversified and distractive from the primary goal of direct client service. For example, the counselor, as part of an organization, may participate in staff meetings, perform other organizationally mandated tasks such as public relations and advertising, or engage in public education/information forums. Like most employees, the organizationally employed counselor receives a salary based upon time with the
organization which may not be reflective of the amount of service that he or she provides.

Some studies (Katz, Johnson and Gelfand, 1972; Pomerleau, Bobrove and Smith, 1973) have noted that modifications in staff performance resulted in patient/client improvement. The present study addressed only the "quantity" aspect of staff performance and did not purport to impact upon quality of service or service outcome dimensions.

The present study compares the effects of two staff incentive procedures, time off from work and monetary compensation, in maintaining or increasing the amount of time that professional counselors spent in direct service (client oriented) activities. The differential impact of these incentive procedures by sex of the counselor was also assessed.
METHOD

Subjects and Setting

Six outpatient counselors employed full-time in an alcohol outpatient counseling facility served as subjects. The educational experience of the six counselors, three male and three female, ranged from a Bachelor's to Master of Arts degrees in the human service area. With the exception of one counselor, all counselors had been employed within the agency for at least one year prior to the onset of the study. Annualized salary ranged from $13,859 to $18,782.

The agency specialized in the delivery of outpatient counseling services for alcoholic clients and family members and was located in an urban area of southwestern Michigan. Total agency staff consisted of a supervisor, two secretaries and seven full-time outpatient counselors.

All counseling staff were exposed to a brief overview of the research study. Six of the seven counseling staff members agreed to serve as study subjects. One of the subjects dropped out of the study after the fourteenth week because of unanticipated training commitments that would require absence from the office two days a week for eight weeks. (A copy of the research participation consent form is included in Appendix A.)

Observation of Staff Behavior

Throughout the study which lasted 30 weeks (150 working days), daily records were kept on the amount of time that counseling staff engaged in 18 predefined categories of staff behavior. Counselors were responsible
for the daily completion and submission of a Counselor Activity Sheet which specified the various activities of the day and the time units (in fifteen minute increments) associated with each activity.

For this study, staff activity was divided into two general categories: client service and agency service. Client service focused on staff behavior relating to the contact with, service to and disposition of necessary paperwork associated with persons seeking service. The following activities constituted client service:

1. **Intake Process:** Activities assessing the service needs of the client and establishing objectives for service provision.
2. **Individual Client Contact:** Activities during which treatment is provided on an individual basis.
3. **Group Treatment Session:** Therapeutic group interventions with registered clients which focus on rehabilitation.
4. **Group Education/Didactic Session:** Group session with a primary objective of information exchange about alcoholism, agency services, etc..
5. **Spouse/Family Contact:** Conjoint family therapy sessions or activities related to the development of family unit service provision.
6. **Significant Other Contact:** Contact with other persons who are in direct contact with the registered client, such as employers, friends, etc..
7. **Crisis Intervention:** Unscheduled activities intended to resolve a client-defined crisis situation.
8. **Correspondence:** Written communication relative to client and his/her involvement with the agency.
9. **Telephone:** Communication via telephone with clients, referral agencies, etc. relative to the provision of client service.
10. **Documentation:** Written communication inserted into the client record relative to the provision of service.
11. **Referral:** Activities relating to the request for supplementary services from another program or the complete transfer of a client to another agency/program.
12. **Follow-up/Evaluation:** Information gathering activities relative to the determination of client status following discharge of client.
13. **Case Consultation:** Activities of consultation and information exchange regarding specific client of agency or collateral contacts for a client of a similar program.
Agency services included routine staff functions required by the agency that did not relate to direct client care. These services were defined as follows:

1. **Program Development**: Activities with a primary objective of the development of new or improved agency services, i.e., new forms, group procedures, grant proposal development, etc..

2. **Administration**: Routine work activities as required by job description, such as supervision of other staff.

3. **Community Education/Public Service**: Activities to inform the public about alcoholism or specific agency functions or to clients of other agencies.

4. **Staff Meetings/Inservice Training**: Collective gathering of staff employees for the purpose of information exchange.

5. **Reading**: Reading of journals, periodicals, books, etc. for the purpose of updating job-related information.

Reported service was independently validated by an employee of the agency not associated with the study and the researcher. Service code entries and associated time units listed on the Counselor Activity Sheets by each counselor were verified by objective means for two randomly selected days each week for each counselor. (The Means of Service Validation is contained in Appendix B.) Initially, validation was performed during the week following the reported delivery of service. Because file documentation was not consistently completed within this time span, the validation time period was altered to two weeks following service delivery.

The validation procedure consisted of systematically checking each entry on the Counselor Activity Sheet using the Means of Service Validation sheet. Because the two persons conducting validation performed the validation checks at different times during the week, it was possible for an activity not verified early in the week to be verified by the end of the week. If an entry was verified by one or more of the validators,
that entry was "validated". A second tabulation on the per cent of validation agreement was also performed. A validation agreement was scored if both validators concurred as to the verification or lack of verification of the service activity entry. A validation disagreement was scored if only one of the validators checked the entry as verified or not verified. The per cent of validation agreements was calculated for the two general service categories by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100.

**Procedure**

During the entire study, each participating counselor was responsible for daily completion and submission of the Counselor Activity Sheet. Data on the volume (units of service in 15 minute increments) and type of counselor activities were collected via this instrument. Directions for completion of the Counselor Activity Sheet were distributed at the onset of the study. (These directions are included in Appendix C.) A client Feedback Sheet was also distributed to clients during the study. (Directions to the counselor regarding the Client Feedback Sheet and a copy of the sheet are included in Appendices D and E.)

**Baseline (Phase I).** During the baseline condition, data on the volume and type of counselor activities were collected via the aforementioned instruments. While each counselor was obligated to a 40 hour week, the actual amount of time devoted to work purposes was also recorded.

At the end of the baseline condition of nine weeks, the mean per cent (%) of time spent in direct client service (service codes 10-16) was calculated for each counselor and the total group. The computational
The formula used for this purpose was:

\[
\text{% Time in Direct Service} = \frac{\# \text{ of direct service units (codes 10-16) delivered}}{\text{Actual hours in office} \times 4 \text{ (units per hour)}}
\]

**Time Off (Phase II).** During the time off phase of the study, every four units of direct service (service codes 10-16) delivered over an individually established weekly minimum criterion entitled the counselor to one (1) hour of time off from work. Time off hours were accumulated with no ceiling or maximum and were to be used by the end of the week in which they were accumulated or the following week. Each counselor was responsible for calculating his/her time off and submitting a weekly Consequence Eligibility Sheet, if the service units exceeded the minimum criterion. (The Time-Off Instruction Sheet distributed to the counselors and the Consequence Eligibility Form are contained in Appendices F and G.)

The minimum weekly service criterion for each counselor was established by individual baseline performance or group mean performance, whichever was the highest. The minimum number of direct service units to be delivered on a weekly basis was established for each counselor by (1) multiplying the individual baseline per cent (%) of time spent in direct service by the required work time in units (160 units = 40 hours per week x 4 units per hour) or (2) multiplying the group baseline mean per cent (%) of time spent in direct service by 160 units. The higher number of units resulting from the above two calculations became the counselor's required minimum weekly criterion for service. The individual minimum criteria are presented in Table 1.
TABLE 1

ESTABLISHMENT OF INDIVIDUAL MINIMUM SERVICE UNITS

<table>
<thead>
<tr>
<th>Individual Baseline</th>
<th>Group Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean % of Time Spent</td>
<td>Mean % of Time Spent</td>
</tr>
<tr>
<td>in Direct Service x 160</td>
<td>in Direct Service x 160</td>
</tr>
</tbody>
</table>

| Counselor 100 | 57% x 160 = 91.2 units | 45% x 160 = 72 units |
| Counselor 200 | 46% x 160 = 73.6 units | 45% x 160 = 72 units |
| Counselor 300 | 53% x 160 = 84.8 units | 45% x 160 = 72 units |
| Counselor 400 | 38% x 160 = 60.8 units | 45% x 160 = 72 units |
| Counselor 500 | 42% x 160 = 65.6 units | 45% x 160 = 72 units |
| Counselor 600 | 33% x 160 = 52.8 units | 45% x 160 = 72 units |

INDIVIDUAL WEEKLY MINIMUM SERVICE UNITS REQUIRED DURING STUDY

| Counselor 100 | 91 |
| Counselor 200 | 74 |
| Counselor 300 | 85 |
| Counselor 400 | 72 |
| Counselor 500 | 72 |
| Counselor 600 | 72 |

Time Off or Monetary Compensation (Phase III). During this phase, counselors could select on a weekly basis either the time off option or additional monetary compensation for direct service delivered over the minimum criterion. Monetary compensation was computed by dividing each employee's annual salary into an hourly rate of pay. This hourly rate of pay became the basis for reimbursement for every four (4) units of service over the required criterion. Checks were sent to the personal residence of each counselor within two weeks of the reported service delivery, contingent upon submission of the Consequence Eligibility Sheet. Each counselor was responsible for determining his/her weekly eligibility for either time off or monetary compensation.
or money were verified for each counselor within three working days by the project researcher.

**Time Off (Phase IV).** Delivery of direct service units over the individually established weekly criterion entitled the counselor to time off from work, as in Phase II.

**Baseline (Phase V).** Reinstatement of the baseline conditions occurred during this last phase of the study.

**Experimental Design**

A split-plot design with repeated measures was used. The five phases of the study utilized the following progression of variables: (1) baseline, (2) time off option, (3) time off option or monetary compensation, (4) time off option and (5) baseline. A comparison of adjacent phases of the study demonstrated that only one variable was manipulated at a time across conditions. This procedure provided two ways of evaluating the effectiveness of the experimental interventions: (1) the repeated measures design used the subjects as their own control in determining the impact of the interventions and (2) the use of the two groups enabled assessment of the differential impact of the treatment variables by sex of the counselor. Counselors 100, 200 and 500 comprised the male group of counselors, while Counselors 300, 400 and 600 were subjects in the female group. The length of the entire study was 30 weeks with time in phases allotted as follows: baseline - 9 weeks, time off option - 5 weeks, time off or monetary compensation - 9 weeks, time off option - 3 weeks and baseline - 4 weeks.
RESULTS

The present study found additional monetary compensation to produce significant increases in counselor output, without measurable effect on client satisfaction. Contingent time off was not effective in increasing counselor productivity. There were significant differences in the performance levels of the male and female counselor groups under the incentive conditions of the study.

The dependent variable of greatest interest was units of service in service categories 10-16 delivered weekly. Counselor Activity Sheets enabled collection of data on four other variables: Total Service Units (codes 10-22, 30-34), Client Service Units (10-22), expanded Direct Service Units (codes 10-16, 18, 21) and time in office. The expanded direct service units include the basic client contact units (10-16), plus telephone (code 18) and follow-up (code 21) contact with clients. These other dependent variables are briefly discussed and are documented in enclosed tables.

Absences from work because of vacation, illness and/or participation in training did occur during the study. For statistical purposes, the mean of the subject's performance during a phase was substituted for any missing weekly data. The group analysis compared the performance of three males with three females for the first two phases and three males with two females for the next three phases, thus, accommodating the withdrawal of one subject from the study at the end of week 14.
Validation

Validation procedures performed on Counselor Activity Sheet data reported by each counselor yielded weekly ranges of per cent of validated entries in each general service category: client service (52%–92%), agency service (22%–100%). Table 2 lists by phases the number of entries and the per cent of validated entries in the two service categories.

TABLE 2

<table>
<thead>
<tr>
<th>Phases</th>
<th>CLIENT SERVICE</th>
<th>AGENCY SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Entries</td>
<td># of Validated Entries</td>
</tr>
<tr>
<td>I</td>
<td>529</td>
<td>424</td>
</tr>
<tr>
<td>II</td>
<td>287</td>
<td>210</td>
</tr>
<tr>
<td>III</td>
<td>541</td>
<td>408</td>
</tr>
<tr>
<td>IV</td>
<td>79</td>
<td>46</td>
</tr>
<tr>
<td>V</td>
<td>135</td>
<td>91</td>
</tr>
</tbody>
</table>

Mean % = 75%

Mean % = 55%

Client Service data elements were more frequently validated than the Agency Service entries. This is due in part because the client service category included performance of a service with another person and required appropriate documentation which could be objectively assessed. Laxity in providing timely file documentation of a service was a factor with most of the non-validated data entries.
The extent to which both validators concurred or disagreed about the verification of the data entries was also assessed. The per cent of validation agreements was calculated weekly by dividing the number of validator agreements by the number of agreements plus disagreements, and multiplying by 100. This procedure yielded a weekly range of agreement from 62% to 100% with a mean of 84%. Table 3 presents the validation agreement information for each phase of the study.

**TABLE 3**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Total Entries Checked</th>
<th>Total Agreements</th>
<th>% Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>638</td>
<td>512</td>
<td>80%</td>
</tr>
<tr>
<td>II</td>
<td>344</td>
<td>283</td>
<td>82%</td>
</tr>
<tr>
<td>III</td>
<td>600</td>
<td>466</td>
<td>78%</td>
</tr>
<tr>
<td>IV</td>
<td>87</td>
<td>84</td>
<td>97%</td>
</tr>
<tr>
<td>V</td>
<td>157</td>
<td>156</td>
<td>99%</td>
</tr>
</tbody>
</table>

Most disagreements occurred as a result of the validators conducting checks independently of each other at different times during the week. A service entry not validated at the first of the week by one validator could be verified later because file documentation was completed during the interim period.

**Treatments**

The group means of direct service units delivered during the course of the study are presented in Table 4.
TABLE 4

GROUP MEANS OF DIRECT SERVICE (DS) UNITS DELIVERED

<table>
<thead>
<tr>
<th>Phases</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>72.33</td>
<td>87.00</td>
<td>108.33</td>
<td>63.00</td>
<td>67.00</td>
</tr>
<tr>
<td>Females</td>
<td>64.67</td>
<td>60.67</td>
<td>68.00</td>
<td>57.00</td>
<td>62.50</td>
</tr>
</tbody>
</table>

Using a Repeated Measures Analysis of Variance, the effects of incentive procedures on direct service contacts by the two groups were assessed. The RMAOV summary table is contained in Table 5.

TABLE 5

REPEATED MEASURES ANALYSIS OF VARIANCE TABLE

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>F-Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td>2829.199</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjects</td>
<td>1600.668</td>
<td>1</td>
<td>1600.668</td>
<td>3.909</td>
<td>0.142</td>
</tr>
<tr>
<td>w/in Groups</td>
<td>1228.531</td>
<td>3</td>
<td>409.510</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables</td>
<td>5238.801</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups by Variables</td>
<td>2991.600</td>
<td>4</td>
<td>747.900</td>
<td>5.486*</td>
<td>0.010</td>
</tr>
<tr>
<td>Variables by Subjects</td>
<td>1311.400</td>
<td>4</td>
<td>327.850</td>
<td>2.405</td>
<td>0.107</td>
</tr>
<tr>
<td>w/in Groups</td>
<td>1635.801</td>
<td>12</td>
<td>136.317</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>8768.000</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .01

The results of this analysis indicate that the incentive procedures (treatment variables) generated significantly different levels of direct
service delivery. A comparison of the interactive effects of treatment variables by groups revealed significant differences in performance between groups during Phase III (time off or monetary compensation). The effects of the incentive procedures upon each group were assessed independently. While the interventions had no significant effect upon the performance of the female group, there were significant differences in the incentive effects upon the male counselor group ($F = 5.465, p < .05$).

Table 6 presents a phase-to-phase comparison of the units of direct service delivered by the male group.

| TABLE 6 |

<table>
<thead>
<tr>
<th>PHASE-TO-PHASE COMPARISON OF DIRECT SERVICE DELIVERY (MALES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>I</td>
</tr>
<tr>
<td>I</td>
</tr>
<tr>
<td>I</td>
</tr>
<tr>
<td>I</td>
</tr>
<tr>
<td>II</td>
</tr>
<tr>
<td>II</td>
</tr>
<tr>
<td>II</td>
</tr>
<tr>
<td>III</td>
</tr>
<tr>
<td>III</td>
</tr>
<tr>
<td>IV</td>
</tr>
</tbody>
</table>

*p < .05

Inspection of Table 6 reveals that for the male group of counselors the introduction of monetary compensation in Phase III had a demonstrable effect on the direct service units delivered. Significantly greater direct service units were delivered during Phase III (monetary compensation or time off) than during the baseline phases (Phase I and V) or the time
off phases (Phases II and IV). While the initial introduction of time off (Phase II) had no effect upon performance, there were appreciable differences between the two time off phases (II and IV), as well as between the initial time off phase (II) and the return to baseline (Phase V).

These data are displayed in the performance graph for both groups (Figure 1). The introduction of the time off contingency in week 10 resulted in a slight decrease in the number of units of direct service delivered by the female group and an increase in performance of the male group. A dramatic increase in performance of males is evident with the introduction of monetary compensation in Phase III. This is the point at which the difference in performance levels of the groups ($\bar{x}$ of male group = 108.33, $\bar{x}$ of female group = 78.33) is most significant. The level of performance dropped during Phase IV and increased slightly with the return to baseline on week 27.

Other Variables

Analysis of other variables (Total Service Units, Client Service Units and expanded Direct Service Units) reveals the same effects as those described for Direct Service Units coded 10-16. This is not surprising since these units are part of the calculations for the other service units. The other units are inclusive of the basic service units coded 10-16. Therefore, as the number of basic direct service units increases or decreases the other variables show a corresponding increase or decrease, unless there is a change in the proportion of direct service (codes 10-16) to other types of service. There was no significant change
Fig. 1 Weekly mean number of direct service units delivered by male and female groups of counselors.
in the proportionate distribution of services. A comparison of the group service means for all variables by phases is presented in Table 7.

**TABLE 7**

**COMPARISON OF GROUP SERVICE MEANS BY PHASES**

<table>
<thead>
<tr>
<th>Phases</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Service Units (10-22, 30-34)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>132</td>
<td>139</td>
<td>152</td>
<td>104</td>
<td>102</td>
</tr>
<tr>
<td>Females</td>
<td>125</td>
<td>120</td>
<td>118</td>
<td>94</td>
<td>110</td>
</tr>
<tr>
<td>Client Service Units (10-22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>96</td>
<td>108</td>
<td>132</td>
<td>80</td>
<td>79</td>
</tr>
<tr>
<td>Females</td>
<td>105</td>
<td>92</td>
<td>100</td>
<td>83</td>
<td>90</td>
</tr>
<tr>
<td>Direct Service Units (10-16)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>72</td>
<td>87</td>
<td>108</td>
<td>63</td>
<td>67</td>
</tr>
<tr>
<td>Females</td>
<td>65</td>
<td>61</td>
<td>68</td>
<td>57</td>
<td>62</td>
</tr>
<tr>
<td>Direct Service Units (10-16, 18, 21)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>78</td>
<td>96</td>
<td>119</td>
<td>68</td>
<td>71</td>
</tr>
<tr>
<td>Females</td>
<td>71</td>
<td>66</td>
<td>77</td>
<td>64</td>
<td>69</td>
</tr>
</tbody>
</table>
Individual Data

An examination of individual subject's data (see Appendix H) revealed that group mean changes were representative of individual staff performances. The most dramatic variations in performance due to introduction of staff incentives are evident in the performance charts of Counselors 100 and 500. Individual subject performances were affected during the course of the study by illness, surgery, pregnancy, death of family members, vacations and an intense agency feud.

The number of times each counselor exceeded the weekly minimum service criterion and experienced the favorable consequences of time off or additional money is presented in Table 8. Since baseline performance data were used to establish weekly criteria, the initial baseline phase is not included.

<p>| TABLE 8 |
|---|---|---|---|---|
| NUMBER OF WEEKS SUBJECTS EXCEEDED INDIVIDUAL MINIMUM SERVICE CRITERION |</p>
<table>
<thead>
<tr>
<th>Phases</th>
<th>Counselors</th>
<th>II (5 weeks)</th>
<th>III (9 weeks)</th>
<th>IV (3 weeks)</th>
<th>V (4 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
During Phase III, the subjects had a choice between time off and monetary compensation. All subjects who exceeded the weekly minimum service criterion selected monetary compensation. An analysis of the phase consequences which each counselor claimed is presented in Table 9.

**TABLE 9**

<table>
<thead>
<tr>
<th>Phases</th>
<th>Counselors</th>
<th>II (Time off in Hours)</th>
<th>III ($)</th>
<th>IV (Time off in Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>10.25</td>
<td>$473.55</td>
<td>-0-</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>-0-</td>
<td>$471.51</td>
<td>-0-</td>
</tr>
<tr>
<td></td>
<td>500</td>
<td>41.50</td>
<td>$573.16</td>
<td>-0-</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>2.75</td>
<td>-0-</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>-0-</td>
<td>$65.45</td>
<td>-0-</td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>2.00</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Table 10 presents the group means of hours in the office.

**TABLE 10**

<table>
<thead>
<tr>
<th>Phases</th>
<th>Phases</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Males</td>
<td>36.5</td>
</tr>
<tr>
<td>Females</td>
<td>37.7</td>
</tr>
</tbody>
</table>
While Group A did increase the amount of time they were in the office during the experimental intervention phases, the general increase in time was not substantial. Group B decreased the amount of time they spent in performance of job related functions. The time factor is an important variable to consider in assessing group response to the experimental interventions. The establishment of individual minimum service criterion was based on the assumption of a required 40 hour work week for each employee. The data indicate that the groups did not fulfill the 40 hour commitment. The managerial laxness with which time was monitored established an unofficial, ongoing time off condition for the employees.

**Client Feedback**

The Client Feedback Sheet was used to ascertain whether the quality of service, as perceived by the clients receiving services, was appreciably affected by the change in study conditions. A numerical averaging of the client responses by counselor and phase of study indicates that there was no substantial change in perceived quality (see Appendix J for complete derivation). Client responses were generally more positive during Phases III and IV, but differences were minor.
The present study compared the effects of two staff incentive procedures: time off from work and additional monetary compensation. Under the incentive conditions, both time off and monetary compensation were contingent upon increased counselor output. For purposes of this study, the output measure of interest was the amount of time that counselors spent in direct service contact with clients.

Time off from work, available during Phases II and IV of the study, had no significant impact upon the direct service units delivered by the counselors. Time off or monetary compensation were contingent upon increased direct services in Phase III. The additional monetary compensation component produced a dramatic escalation in the units of direct service delivered by the male group of counselors, but had no effect upon the performance of the female counselors.

The research findings of this study are not consistent with other reports regarding the use of time off as a potential reward for productivity. While there are only a limited number of studies examining the effects of time off, there are several research findings that establish the viability of time off as a reinforcer. The Nealey and Goodale (1967) study of worker preferences for time off or money indicated that generally time off was preferred, especially by female employees. Iwata, Bailey, Brown, Foshee and Alpern (1976) effectively used work schedule manipulations to improve productivity of attendants at a handicapped residential center. While choosing days off is not necessarily the same as reduction in actual working time, the basic principle
of manipulating one's own work time is the same. However, in this study the performance of the female employees was not affected by the existence of the time off option and, while the level of direct service by male counselors slightly increased, there was no statistical significance associated with the time off procedure.

One factor which may have contributed to the ineffectiveness of the time off incentive procedure is the amount of time actually spent by the counselors in performance of their jobs. This has been referred to as time in the office in the results section and is intended to mean time (either in or out of the office) devoted to employment functions. The agency time requirement for all employees was 40 hours per week. However, as Table 10 indicates, the counselors spent fewer than 40 hours per week in performance of their work responsibilities. Being salaried employees, the counselors did not have their work time closely monitored. This laxness in scrutinizing work time enabled some of the counselors to take a few extra hours during the week without having to claim vacation time. Inspection of individual subject's time records on the Counselor Activity Sheet revealed that some persons were regularly close to the 40 hour per week requirement, while others consistently fell under the time expectation. In essence, this agency-accepted practice constituted an ongoing time off condition that was not contingent upon work related performance. It may be the case that the effectiveness of a time off condition is related to the work environment. An atmosphere in which there are rigid controls over the on-the-job hours may increase the attractiveness of the time off option.

Review of the literature found that performance was higher when pay or monetary compensation was contingently linked to performance (Pomerleau,
Bobrove and Smith, 1973; Patterson, Griffin and Panyan, 1976; Komaki, Waddell and Pearce, 1977; Yukl and Latham, 1975). According to Katell and Yankelovich (1975) and Dyer, Schwab and Fossum (1978), a critical dimension in assessing the motivational nature of money is whether the money is contingent upon the behavior to be influenced. The attendance studies (Nord, 1970; Wallin and Johnson, 1976; Hermann, DesMontes, Dominquez, Montes and Hopkins, 1973; Pedalino and Gamboa, 1974) demonstrated that this one aspect of job performance, attendance and/or punctuality, could be modified by contingent use of a cash award. This study also found that additional monetary compensation was effective in producing higher levels of direct service delivery.

The differential effect of this incentive is evident when comparing the male and female groups during Phase III when monetary compensation was available. The output of the male counselors was significantly affected by monetary reimbursement, whereas the female group's output remained fairly constant. The difference in performance levels and the ineffectiveness of the money to produce change in the female rate of behavior are not easily explained. Like the Yukl and Latham study (1975), the existence of a salary on a concurrent fixed-interval (FI) schedule may have diluted the effects of the pay reward contingency. Contact or lack of contact with the reinforcement contingency could be a factor, but it is not wholly sufficient as an explanation. While the performance level of Counselor 300 was not high enough to warrant reinforcement, Counselor 400 did receive additional monetary compensation early in Phase III. Apparently, this was not sufficiently reinforcing to result in sustained performance at a higher level. The Nealey and Goodale (1967) preference studies indicated that the male
preference for pay increases as compensation benefits was significantly higher than the female preference. More than likely the amount of additional monetary compensation available in this study was not a sufficient reinforcer for the female group to generate higher output levels.

In the absence of the traditional profit motive associated with the private sector, the establishment of concrete performance measures in the public sector is necessary. The relative merits, in terms of volume of public service, are evident in this present study. The volume of service was increased through the establishment of individualized performance criterion and the availability of incentives for output increases. During the third phase of the study, total reimbursement to the counselors for an increase in 846 units of service or 211.5 hours was $1,583.67. The fees generated by the increased service capability would amount to $6,345, assuming an assessed fee and collection rate of $30.00 an hour. The net gain to the agency would be $4,761.33 in the course of nine weeks. Using a projection of the same performance pattern for the year, the additional revenues for the agency could maximally total $27,509.90. Given the present situation of dwindling state fiscal support for human services, the additional revenues would benefit the agency while at the same time differentially reinforcing the employees whose productivity contributed to the financial gain. Thus, the significance of this research extends beyond the area of statistical significance into the area of management importance.

An administrator should not assume that "more desirable" staff behavior will necessarily lead to more desirable client behaviors. Some studies (Katz, Johnson and Gelfand, 1972; Pomerleau, Bobrove and Smith, 1973) were able to favorably impact upon client status through staff interventions.
However, the present research did not purport to affect the quality of treatment or client status through staff incentives. Rather, the study impacted directly on volume of service and indirectly on availability of service. If volume capabilities are increased, the availability of that service, allowing people to be seen more quickly or for longer periods of time, may be positively altered. Several studies (Emrick, 1975; Armor, Polich and Stambul, 1978) have suggested that the rate of improvement for alcoholics is positively related to treatment amount. More appropriate staff management, in terms of expanded treatment staff availability, may also indirectly affect quality. This is certainly a function that could be answered through future research efforts.

As with many applied studies, some of the characteristics of the present study made rigorous adherence to experimental design procedures difficult. Monitoring of work time is but one example. Additionally, the change of experimental conditions was occasionally hastened because of agency related problems. Stabilization of baseline performance did not occur because the agency requested a change from baseline condition due to internal agency problems that were disruptive for the staff. The agency supervisor felt that continued study participation by the staff might be threatened unless the study moved forward. The research was also terminated early because of ensuing office relocation and extensive summer vacation plans. Inability to control relevant variables in an applied setting often can complicate the research design and analysis, but should not deter investigators from analyzing the extension of behavioral principles into the "real world situations".

The within-subjects design was appropriate for evaluating the effec-
tiveness of the staff incentive interventions with individual employees and small groups. In terms of external validity, one should be cautious about drawing conclusions regarding the generalizability of the findings. Obviously, the difference in performance levels between the male and female staff members and the applicability of the time off and additional monetary compensation strategies to other situations provide the basis for future research questions.

In conclusion, the present study demonstrates that incentive procedures, such as time off and monetary compensation, can be effective in altering the amount of time that professional counselors spend in direct service activities. The difference in performance of the male and female participants under the incentive conditions of the study implies that no one incentive procedure may be effective with more than a subset of the population. At a time of escalating service demand and diminishing fiscal resources resulting in staff reduction, human service worker motivation is a timely and important topic for further research endeavors.
Acknowledgement of Agency Research Participation

I, ______________________, do hereby acknowledge and attest to my voluntary participation in the staff incentive research project. Upon completion of the research project, I will not hold the management or union officials responsible for the continuation of any staff management practices instituted during the course of the research project.

Date: ______________________  Signed: ______________________
Means of Service Validation

10. Intake Process: 1) General agency appointment calendar
    2) Specific counselor appointment calendar
    3) Documentation in the file

11. Individual Client Contact: 1) General agency appointment calendar
    2) Specific counselor appointment calendar
    3) Documentation in the file

12. Group Treatment: 1) General agency appointment calendar
    2) Specific counselor appointment calendar
    3) Documentation in clients' files

13. Group Didactic: 1) General agency appointment calendar
    2) Specific counselor appointment calendar
    3) Documentation in clients' files

14. Spouse/Family Contact: 1) General agency appointment calendar
    2) Specific counselor appointment calendar
    3) Documentation in clients' files

15. Significant Other Contact: 1) General agency appointment calendar
    2) Specific counselor appointment calendar
    3) Documentation in clients' files

16. Crisis Intervention: 1) Documentation in client file
    2) Verification from others present (home, hospital, records, etc.)

17. Correspondence: 1) Documentation in client file

18. Telephone: 1) Documentation in client file
    2) Verification from person with whom counselor talked

19. Documentation: 1) Documentation in client file

20. Referral: 1) Documentation relating to referral in client file
    2) Other agency visitation
    3) Correspondence from other agency in client file

21. Follow-up/Evaluation: 1) Documentation in client file of follow-up activities
    2) General agency appointment calendar
    3) Specific counselor appointment calendar
    4) Follow-up correspondence in client file

22. Case Consultation: 1) Documentation in client file of consultative efforts
    2) Other agency visitation
    3) General agency appointment calendar verification of visitation by other agency personnel for purposes of consultation
4) Cross listing of same activity by agency personnel involved in consultation

30. Program Development: 1) Submission of work may be specified by counselor

31. Administration: 1) Submission of work may be specified by counselor

32. Community Education: 1) General agency appointment calendar  
2) Specific counselor appointment calendar  
3) Correspondence to either agency or counselor relative to appearance

33. Staff Meetings/Inservice Training: 1) General agency file containing  
a. date of meeting  
b. persons in attendance  
c. purpose or function of meeting
DIRECTIONS FOR USE OF COUNSELOR ACTIVITY SHEET

Please look over the Counselor Activity Sheet and the service code definitions on the back of the sheet. As time progresses, these definitions and coding will become second-nature, however, any confusions or ambiguities should be clarified now.

General Suggestions

1. This is a daily recording sheet and, therefore, should be kept in a convenient location on your desk (or wherever) as a reminder to "keep current".
2. The easiest way to use this sheet is to get in the habit of recording activities as they occur. (Tallying at the end of the working day will, no doubt, result in the recording of fewer services than you actually delivered.)
3. It is definitely to your advantage to engage in honest recording of units of service actually delivered. Your recording of activities will be validated weekly.

Specific Directions

1. Counselor #: Fill in this space with your assigned counselor identification number. The assigned number will be the same throughout the study. Except for Sharon and Mike, no one has access to your number — unless you choose to divulge the number to your colleagues.
2. Date: Fill in this space with the current day and date.
   Example: Monday, 1-16-78
3. Time of Arrival/Departure: These spaces should reflect accurately your total daily time in the office complex for working purposes. Leaving the office for lunch, breaking for lunch in the office, errands, etc. should all be indicated. Please note that if you bring your lunch, you should show lunch time with a time indication for departure and arrival.
   Example: A.M.   P.M.
   Time of Arrival 8:45 __________/12:35; 2:30
   Time of Departure 11:55 __________/2:15 __________ 5:00
   The above example shows an arrival in the office at 8:45 a.m., a break for lunch (or whatever) at 11:55, return to work at 12:35, leave from the office from 2:15 to 2:30, and a final departure at 5:00 p.m.
4. Not in Office: This section is reserved for days in which you did not come into the office at all. Upon your return to work, please fill out a sheet for each day absent from work.
5. Client Service: Service codes 10-22 apply to the client service category. For each activity, record (1) the client case #, (2) the service code for the type of service delivered and (3) the units of service (time units in 15' intervals). For group sessions, record the client case numbers of at least 50% of the persons present for the group session.
## Counselor Activity Sheet

<table>
<thead>
<tr>
<th>Counselor Name</th>
<th>Time of Arrival a.m.</th>
<th>Time of Departure p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase</td>
<td>Not in Office: Ill</td>
<td>Vacation Time</td>
</tr>
<tr>
<td>Day</td>
<td>Comp. Time</td>
<td>Other</td>
</tr>
</tbody>
</table>

### Service Code

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Intake</td>
</tr>
<tr>
<td>11</td>
<td>1:1 Contact</td>
</tr>
<tr>
<td>12</td>
<td>Group Treatment</td>
</tr>
<tr>
<td>13</td>
<td>Group Didactic</td>
</tr>
<tr>
<td>14</td>
<td>Family Contact</td>
</tr>
<tr>
<td>15</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Other Contact</td>
</tr>
<tr>
<td>16</td>
<td>Crisis Intervention</td>
</tr>
<tr>
<td>17</td>
<td>Correspondence</td>
</tr>
<tr>
<td>18</td>
<td>Telephone</td>
</tr>
<tr>
<td>19</td>
<td>Documentation</td>
</tr>
<tr>
<td>20</td>
<td>Referral</td>
</tr>
<tr>
<td>21</td>
<td>Follow-up</td>
</tr>
<tr>
<td>22</td>
<td>Consultation</td>
</tr>
<tr>
<td>30</td>
<td>Program Development</td>
</tr>
<tr>
<td>31</td>
<td>Administration</td>
</tr>
<tr>
<td>32</td>
<td>Community Education</td>
</tr>
<tr>
<td>33</td>
<td>Staff Meeting/Training</td>
</tr>
<tr>
<td>34</td>
<td>Reading</td>
</tr>
</tbody>
</table>

### Client Service

<table>
<thead>
<tr>
<th>Case</th>
<th>Service Code</th>
<th>Units</th>
<th>Service Code</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Agency Service

<table>
<thead>
<tr>
<th></th>
<th>Service Code</th>
<th>Units</th>
<th>Service Code</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Time Units

- 1 = up to 15'
- 2 = 16 to 30'
- 3 = 31 to 45'
- 4 = 46 to 1 hr.

Continue in 15' Intervals

### Summary

<table>
<thead>
<tr>
<th>Time in Agency</th>
<th>Service</th>
<th>Means of Validation</th>
<th>V/NV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units of Client Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Units of Agency Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS REPORTED

---

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
SERVICE CODE DEFINITIONS

I. Client Service

10 Intake Process: Activities whose objective is to assess the service needs of the client and objectives for service provision

11 Individual Client Contact: All activities during which treatment is provided on an individual basis

12 Group Treatment Session: Therapeutic group interventions with registered clients which focus on rehabilitation

13 Group Education/Didactic Sessions: Group session with a primary objective of information exchange about agency, alcoholism, etc.

14 Spouse/Family Contact: Conjoint family therapy sessions or activities related to the development of family unit service provision

15 Significant Other Contact: Contact with other persons who are in direct contact with the registered client, such as employers, friends, etc.

16 Crisis Intervention: Normally unscheduled activities whose objective is to resolve the crisis situation as defined by the client

17 Correspondence: All written communication relative to client and his/her involvement with the agency

19 Documentation: All written communication inserted into client record relative to the provision of service

20 Referral: All activities relating to the request for supplementary services from another program or the complete transfer of a client to another agency/program

21 Follow-up/Evaluation: All information gathering activities relative to the determination of client status following discharge of client

22 Case Consultation: All activities of consultation and information exchange regarding specific client of agency or collateral contacts for a client of a similar program

II. Agency Service

30 Program Development: All activities with a primary objective of the development of new or improved agency services, i.e., new forms, group procedures, grant proposal development, etc.

31 Administration: Routine work activities as required by job description, such as supervision of other staff

32 Community Education/Public Service: All activities whose purpose is to educate about alcoholism or specific agency functions or to provide information about agency services as they relate to clients of other agencies

33 Staff Meetings/Inservice Training: Collective gathering of all staff employees for the purpose of information exchange

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
CLIENT FEEDBACK SHEET DIRECTIONS

The Client Feedback Sheet is being utilized for feedback purposes to both the counselor and the agency. In some respects, it attempts to provide a "quality of service" measure. Each counselor may look through the feedback sheets completed by his/her clients, but will not have access to the feedback sheets of other counselors. If the management wishes to have access to this information, it will be supplied in aggregate form, not by individual counselor.

Directions for Use:

1. The Client Feedback Sheet should be distributed at the end of each counseling (individual, family or group) session to all participants.

2. A brief description of the purpose of the form should be offered the client, even though the introductory paragraphs offer an explanation.

3. Stress should be placed upon anonymity of responses.

4. Once completed, the forms should not be handed back to the counselor. Instead, a centrally located station will be assigned for depositing the forms.

5. If you wish to see your forms, please see Mike.
APPENDIX E

CLIENT FEEDBACK SHEET

Counselor I.D. Number ___________ Date ___________

We are eager to know whether the service you received from the agency today was helpful or not. Your opinions are important to us. Your answers will be studied carefully along with many others in order that we may continue to improve our services to you. All answers will be kept confidential and used only for the purpose of evaluating the quality of service at the agency.

For each statement, please circle the number under the statement that is as close as possible to how you feel about the statement. Please answer all items even if you have to give your best guess.

1. The agency hours are convenient for me.

1 2 3 4 5 6 7 8 9

Strongly Disagree Agree Strongly
Disagree Somewhat Somewhat Agree

2. The appointment today was worth the effort I made in keeping it.

1 2 3 4 5 6 7 8 9

Strongly Disagree Agree Strongly
Disagree Somewhat Somewhat Agree

3. The counselor was understanding and seemed to care about my problems.

1 2 3 4 5 6 7 8 9

Strongly Disagree Agree Strongly
Disagree Somewhat Somewhat Agree

4. The counselor was attentive and helpful.

1 2 3 4 5 6 7 8 9

Strongly Disagree Agree Strongly
Disagree Somewhat Somewhat Agree

5. The agency and the counselor are able to provide what I need.

1 2 3 4 5 6 7 8 9

Strongly Disagree Agree Strongly
Disagree Somewhat Somewhat Agree

6. I would come to this agency again.

1 2 3 4 5 6 7 8 9

Strongly Disagree Agree Strongly
Disagree Somewhat Somewhat Agree

7. My overall feelings about the agency and services are

1 2 3 4 5 6 7 8 9

Poor Fair Good Excellent

8. Please feel free to make other comments or suggestions.

Thank you for your time and effort in completing this form.
TIME-OFF INSTRUCTION SHEET

As of Monday, March 6, 1978, you will be entering the time-off phase of the study. The procedures for this phase are outlined below:

1. The daily recording system on the Counselor Activity Sheet will remain intact.

2. Time-off from work will be available in the following manner. For each 4 units of clinical service in service categories 10-16 (Intake, 1:1, Group treatment, Group didactic, family, significant other and crisis intervention) over the minimum level, you will be entitled to 1 hour off work. The minimum level for you is listed on the bottom of this page. The minimum criterion has been established by your performance throughout the past nine weeks, and reflects either a weekly average of the service in categories 10-16 which you delivered or the average of units of service delivered by all the counselors in the agency.

3. At the end of each day before submitting your daily activity sheet, tally the number of units of service in categories 10-16 only. Keep a running total so that at the end of the week you can determine (1) whether you have reached the minimum level and (2) how much time-off is due you. Once the minimum criterion is met, your time-off can be easily calculated by equating 1 hour of time-off with each 4 units of service in categories 10-16 over the minimum. Or, for end-of-the-week calculation, you can use following:

\[
\frac{(\text{Total units of service in categories 10-16}) \text{ minus } (\text{Minimum units required})}{4} = \text{Excess Units}
\]

\[
\text{Excess Units/4} = \text{Hours of time-off for which eligible}
\]

4. You are responsible for keeping track of the time-off hours due you. For our own records, however, please submit the form entitled, Submission Form for Time-off Eligibility, at the end of the week if you feel you are entitled to time-off.

5. Time-off hours should be used at the end of the week in which they were accumulated or by the end of the following week.

Counselor # ______________________

Minimum Units of Service (categories 10-16) _______________
CONSEQUENCE ELIGIBILITY FORM

Fill out this section for Time-off Eligibility:

I, ____________________________, declare myself eligible for ________ hours of personal time-off. During the week of ______________________ (date), I delivered and reported ______________ units of service in service categories 10-16, 18 and 21.

Signed: ____________________________
Date: ____________________________

Validated by: ____________________________

Fill out this section for Monetary Reimbursement:

I, ____________________________, declare myself eligible for monetary reimbursement in the amount of ______________. During the week of ______________________ (date), I delivered and reported ______________ units of service in service categories 10-16, 18 and 21.

Signed: ____________________________
Date: ____________________________

Validated by: ____________________________

53

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Fig. H1. Weekly number of direct service units delivered by Counselor 100.
Fig. H2 Weekly number of direct service units delivered by Counselor 200.
Fig. H3 Weekly number of direct service units delivered by Counselor 300.

Baseline

Time Off

Time Off or Money

Time Off

Baseline

180 140 100 60 20

Weeks

0 6 12 18 24 30

Direct Service Units
Fig. H4 Weekly number of direct service units delivered by Counselor 400.
Fig. H5 Weekly number of direct service units delivered by Counselor 500.
Fig. H6  Weekly number of direct service units delivered by Counselor 600.
### APPENDIX I

#### INDIVIDUAL SERVICE MEANS BY PHASES

<table>
<thead>
<tr>
<th>Phases</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counselors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>136</td>
<td>136</td>
<td>154</td>
<td>125</td>
<td>85</td>
</tr>
<tr>
<td>CS</td>
<td>90</td>
<td>96</td>
<td>124</td>
<td>75</td>
<td>66</td>
</tr>
<tr>
<td>DS1</td>
<td>78</td>
<td>92</td>
<td>116</td>
<td>75</td>
<td>66</td>
</tr>
<tr>
<td>DS2</td>
<td>78</td>
<td>92</td>
<td>119</td>
<td>75</td>
<td>66</td>
</tr>
<tr>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>134</td>
<td>109</td>
<td>143</td>
<td>94</td>
<td>127</td>
</tr>
<tr>
<td>CS</td>
<td>102</td>
<td>88</td>
<td>129</td>
<td>83</td>
<td>102</td>
</tr>
<tr>
<td>DS1</td>
<td>77</td>
<td>64</td>
<td>99</td>
<td>57</td>
<td>81</td>
</tr>
<tr>
<td>DS2</td>
<td>81</td>
<td>70</td>
<td>110</td>
<td>64</td>
<td>86</td>
</tr>
<tr>
<td>300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>144</td>
<td>137</td>
<td>131</td>
<td>106</td>
<td>125</td>
</tr>
<tr>
<td>CS</td>
<td>114</td>
<td>98</td>
<td>105</td>
<td>95</td>
<td>100</td>
</tr>
<tr>
<td>DS1</td>
<td>84</td>
<td>69</td>
<td>72</td>
<td>67</td>
<td>73</td>
</tr>
<tr>
<td>DS2</td>
<td>94</td>
<td>77</td>
<td>80</td>
<td>77</td>
<td>83</td>
</tr>
<tr>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>119</td>
<td>121</td>
<td>105</td>
<td>82</td>
<td>96</td>
</tr>
<tr>
<td>CS</td>
<td>88</td>
<td>77</td>
<td>95</td>
<td>71</td>
<td>80</td>
</tr>
<tr>
<td>DS1</td>
<td>53</td>
<td>51</td>
<td>64</td>
<td>47</td>
<td>52</td>
</tr>
<tr>
<td>DS2</td>
<td>61</td>
<td>58</td>
<td>74</td>
<td>51</td>
<td>55</td>
</tr>
<tr>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>125</td>
<td>172</td>
<td>159</td>
<td>94</td>
<td>95</td>
</tr>
<tr>
<td>CS</td>
<td>95</td>
<td>141</td>
<td>143</td>
<td>83</td>
<td>69</td>
</tr>
<tr>
<td>DS1</td>
<td>62</td>
<td>105</td>
<td>110</td>
<td>57</td>
<td>54</td>
</tr>
<tr>
<td>DS2</td>
<td>75</td>
<td>127</td>
<td>128</td>
<td>64</td>
<td>60</td>
</tr>
<tr>
<td>600</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>113</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>113</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DS1</td>
<td>57</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DS2</td>
<td>57</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TS = Total Service Units (codes 10-22, 30-34)
CS = Clients Service Units (codes 10-22)
DS1 = Direct Service Units (codes 10-16)
DS2 = Direct Service Units (codes 10-16, 18, 21)

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
### Numerical Mean of Responses on Client Feedback Sheet

#### Phases

<table>
<thead>
<tr>
<th>Counselor</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The agency hours are convenient to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>7.9</td>
<td>7.3</td>
<td>8.9</td>
<td>8.7</td>
<td>8.9</td>
</tr>
<tr>
<td>200</td>
<td>7.5</td>
<td>7.6</td>
<td>7.4</td>
<td>9.0</td>
<td>7.2</td>
</tr>
<tr>
<td>300</td>
<td>7.6</td>
<td>7.9</td>
<td>7.8</td>
<td>8.4</td>
<td>8.5</td>
</tr>
<tr>
<td>400</td>
<td>7.9</td>
<td>7.2</td>
<td>7.5</td>
<td>---</td>
<td>7.5</td>
</tr>
<tr>
<td>500</td>
<td>7.4</td>
<td>8.0</td>
<td>8.4</td>
<td>---</td>
<td>7.4</td>
</tr>
<tr>
<td>Group X</td>
<td>7.66</td>
<td>7.6</td>
<td>8.0</td>
<td>8.7</td>
<td>7.9</td>
</tr>
<tr>
<td>2. The appointment today was worth the effort I made in keeping it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>8.2</td>
<td>7.7</td>
<td>8.8</td>
<td>8.7</td>
<td>9.0</td>
</tr>
<tr>
<td>200</td>
<td>7.8</td>
<td>7.7</td>
<td>7.7</td>
<td>8.0</td>
<td>7.3</td>
</tr>
<tr>
<td>300</td>
<td>8.3</td>
<td>8.3</td>
<td>8.9</td>
<td>8.6</td>
<td>8.9</td>
</tr>
<tr>
<td>400</td>
<td>8.2</td>
<td>7.8</td>
<td>7.7</td>
<td>9.0</td>
<td>8.5</td>
</tr>
<tr>
<td>500</td>
<td>7.7</td>
<td>7.4</td>
<td>8.4</td>
<td>---</td>
<td>7.4</td>
</tr>
<tr>
<td>Group X</td>
<td>8.04</td>
<td>7.78</td>
<td>8.3</td>
<td>8.58</td>
<td>8.22</td>
</tr>
<tr>
<td>3. The counselor was understanding and seemed to care about my problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>8.1</td>
<td>8.6</td>
<td>8.6</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>200</td>
<td>8.0</td>
<td>7.9</td>
<td>7.9</td>
<td>8.0</td>
<td>7.4</td>
</tr>
<tr>
<td>300</td>
<td>8.8</td>
<td>8.9</td>
<td>8.9</td>
<td>8.8</td>
<td>9.0</td>
</tr>
<tr>
<td>400</td>
<td>8.6</td>
<td>7.9</td>
<td>7.9</td>
<td>9.0</td>
<td>8.5</td>
</tr>
<tr>
<td>500</td>
<td>8.2</td>
<td>8.6</td>
<td>8.6</td>
<td>---</td>
<td>7.7</td>
</tr>
<tr>
<td>Group X</td>
<td>8.34</td>
<td>8.38</td>
<td>8.38</td>
<td>8.7</td>
<td>8.32</td>
</tr>
<tr>
<td>4. The counselor was attentive and helpful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>8.2</td>
<td>8.1</td>
<td>8.6</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>200</td>
<td>8.0</td>
<td>7.5</td>
<td>7.7</td>
<td>9.0</td>
<td>7.3</td>
</tr>
<tr>
<td>300</td>
<td>8.8</td>
<td>8.7</td>
<td>8.9</td>
<td>8.8</td>
<td>9.0</td>
</tr>
<tr>
<td>400</td>
<td>8.5</td>
<td>8.0</td>
<td>7.9</td>
<td>9.0</td>
<td>8.5</td>
</tr>
<tr>
<td>500</td>
<td>8.0</td>
<td>8.0</td>
<td>8.4</td>
<td>---</td>
<td>7.4</td>
</tr>
<tr>
<td>Group X</td>
<td>8.3</td>
<td>8.06</td>
<td>8.3</td>
<td>8.95</td>
<td>8.24</td>
</tr>
<tr>
<td>5. The agency and the counselor are able to provide what I need.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>7.7</td>
<td>7.4</td>
<td>8.6</td>
<td>9.0</td>
<td>8.65</td>
</tr>
<tr>
<td>200</td>
<td>7.3</td>
<td>7.3</td>
<td>7.2</td>
<td>8.7</td>
<td>7.0</td>
</tr>
<tr>
<td>300</td>
<td>8.0</td>
<td>8.1</td>
<td>8.4</td>
<td>8.3</td>
<td>9.3</td>
</tr>
<tr>
<td>400</td>
<td>7.3</td>
<td>7.3</td>
<td>7.2</td>
<td>6.0</td>
<td>8.0</td>
</tr>
<tr>
<td>500</td>
<td>7.1</td>
<td>7.2</td>
<td>7.6</td>
<td>---</td>
<td>7.2</td>
</tr>
<tr>
<td>Group X</td>
<td>7.48</td>
<td>7.46</td>
<td>7.8</td>
<td>8.0</td>
<td>7.83</td>
</tr>
</tbody>
</table>
### Phases

<table>
<thead>
<tr>
<th>Counselor</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I would come to this agency again.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>8.4</td>
<td>7.6</td>
<td>8.8</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>200</td>
<td>7.3</td>
<td>7.0</td>
<td>7.3</td>
<td>8.0</td>
<td>6.9</td>
</tr>
<tr>
<td>300</td>
<td>8.5</td>
<td>8.6</td>
<td>8.9</td>
<td>8.8</td>
<td>8.9</td>
</tr>
<tr>
<td>400</td>
<td>8.2</td>
<td>7.5</td>
<td>7.5</td>
<td>9.0</td>
<td>8.0</td>
</tr>
<tr>
<td>500</td>
<td>7.4</td>
<td>7.7</td>
<td>8.1</td>
<td>---</td>
<td>7.4</td>
</tr>
<tr>
<td>Group $\bar{X}$</td>
<td>7.96</td>
<td>7.68</td>
<td>8.12</td>
<td>8.7</td>
<td>8.04</td>
</tr>
</tbody>
</table>

| 7. My overall feeling about the agency and services are |   |    |     |    |   |
| 100       | 8.3 | 7.3 | 8.4 | 9.0 | 8.65 |
| 200       | 7.4 | 7.5 | 7.3 | 9.0 | 7.3 |
| 300       | 8.1 | 8.1 | 8.6 | 8.6 | 8.6 |
| 400       | 7.7 | 7.3 | 7.2 | 8.0 | 8.5 |
| 500       | 7.3 | 7.5 | 8.0 | --- | 7.4 |
| Group $\bar{X}$ | 7.76 | 7.54 | 7.9 | 8.65 | 8.09 |

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
<table>
<thead>
<tr>
<th>Counselor</th>
<th>Salary</th>
<th>$ per Hour</th>
<th>$ per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>$18,782.40</td>
<td>$9.02</td>
<td>$2.25</td>
</tr>
<tr>
<td>200</td>
<td>$14,102.40</td>
<td>$6.78</td>
<td>$1.69</td>
</tr>
<tr>
<td>300</td>
<td>$14,102.40</td>
<td>$6.78</td>
<td>$1.69</td>
</tr>
<tr>
<td>400</td>
<td>$15,558.40</td>
<td>$7.48</td>
<td>$1.87</td>
</tr>
<tr>
<td>500</td>
<td>$14,830.40</td>
<td>$7.13</td>
<td>$1.78</td>
</tr>
<tr>
<td>600</td>
<td>$13,858.93</td>
<td>$6.66</td>
<td>$1.66</td>
</tr>
</tbody>
</table>

Mean Salary Amount = $15,205.82
BIBLIOGRAPHY


Bailey, M. I., Cone, J. D. and Statler, C. Priority setting: A procedure to increase aides' training of retarded children. Behavior Therapy (In press).

64


Dole, J. D. Increase productivity 50% in one year with sound wage incentives. Management Methods, 1959, 15, 38-42.


Deci, E. L. Paying people doesn't always work the way you expect it to. Human Resources Management, 1973, 12, 28-32.


Murphy, J. R. Is it Skinner or nothing? Training and Development Journal, 1972, 26, 2-8.


Wroten, J. D. Improving staff productivity with a management information system. Presentation at American Society for Public Administration, Southeast Regional Conference, Knoxville, Tennessee, 1977, 1-4.


Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.