

PROJECT REPORT # 12

ANALYSIS OF THE CLIENT NEEDS ASSESSMENT SCALE



DEPARTMENT OF HEALTH AND SOCIAL SERVICES

CASE CLASSIFICATION/STAFF DEPLOYMENT PROJECT

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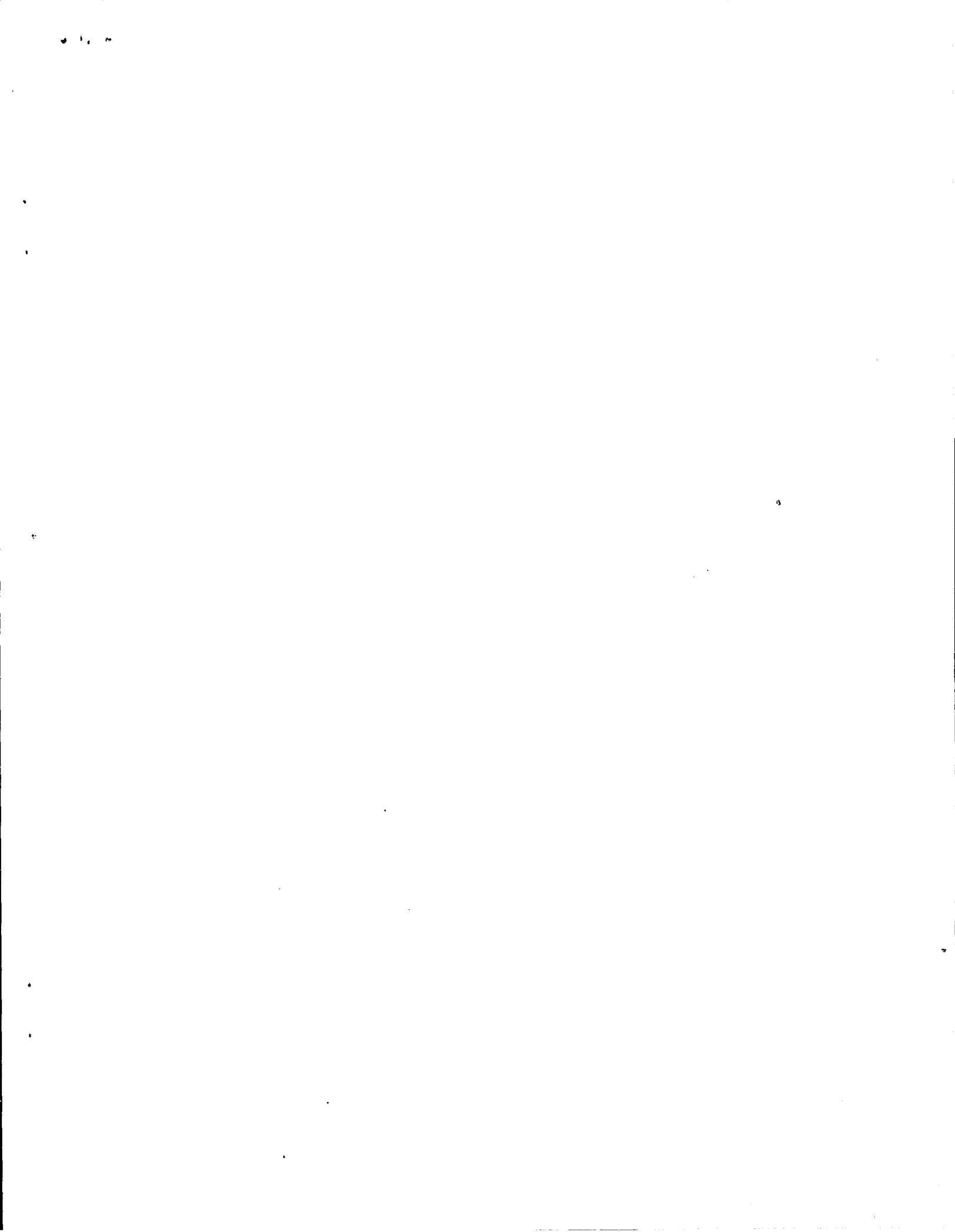
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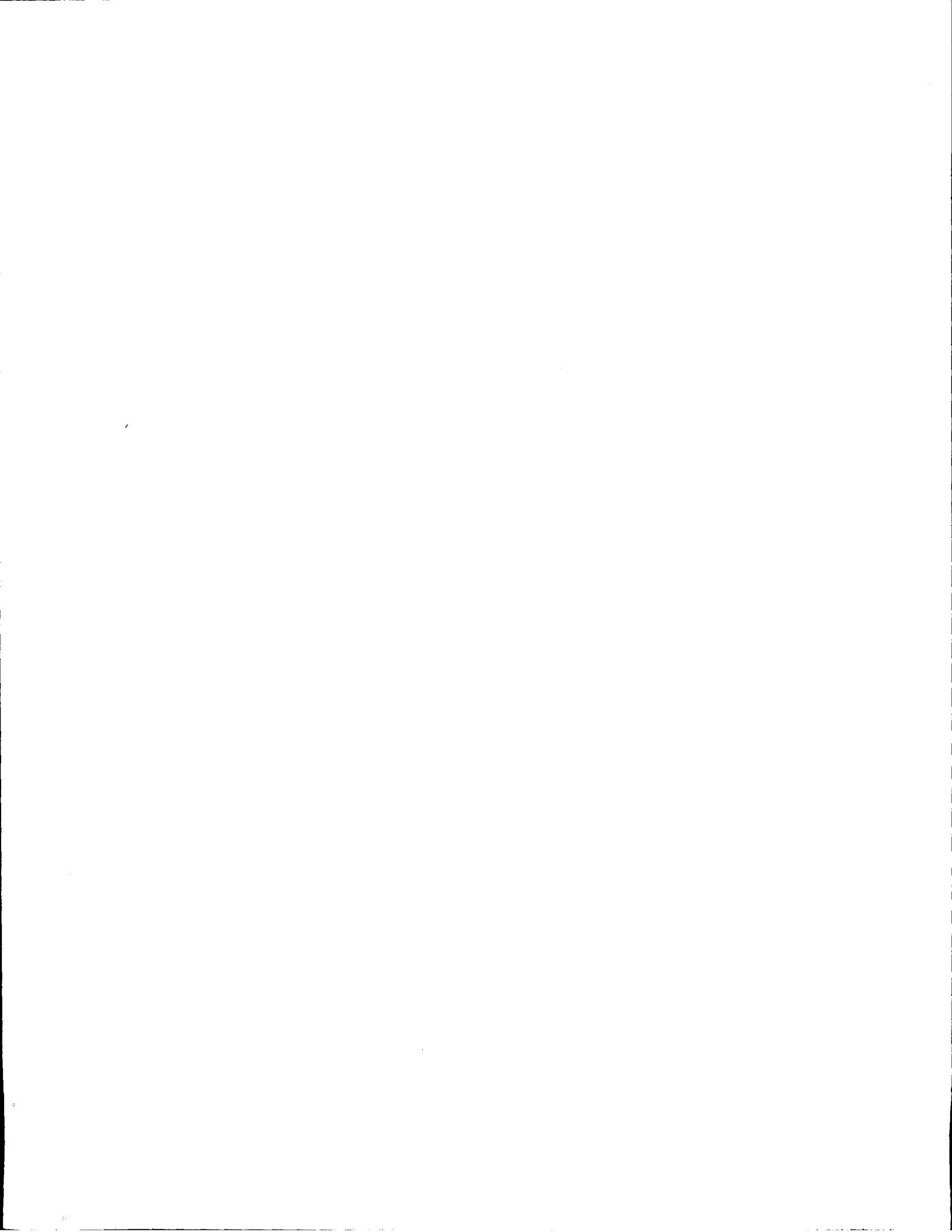
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INTRODUCTION

Wisconsin's effort to develop a classification system began as the result of a directive from the State Legislature to "implement a workload inventory system and specialized caseloads for probation and parole agents." The intent of the directive was later interpreted not as a mandate to specialize all caseloads but to improve effectiveness of service delivery by systematically relating client needs to agent functional time requirements.

This desire to improve service delivery led the Case Classification/Staff Deployment Project to develop processes which would:

1. Improve identification of client needs.
2. Ensure that agents would have sufficient time allotted to deal with clients with various need profiles.
3. Help agents to quickly develop appropriate casework strategies; to help agents understand their clients in order to deal more effectively with their problems.

The subject of this report, the needs assessment scale, was developed to standardize and improve identification of client needs. The scale is completed by Probation and Parole agents and is used to help determine the appropriate level of supervision for each client. The higher the level of supervision that a client is assigned, the more time an agent is allotted to supervise that individual. The time allotment associated with each supervision level is based on time study results and represents the average amount of time required to deal with each client at each level. Staff deployment based on workload is fully explained in Project Report #9.

The process to help agents develop appropriate treatment strategies is outlined in Project Report #7.

DEVELOPMENT OF THE NEEDS ASSESSMENT SCALE

Probationers and parolees have both chronic and crisis needs, some of which can be handled through referral to the appropriate community resource agency and others that the agent must deal with directly.

The Wisconsin Division of Corrections sought to standardize the manner in which agents assess the needs of their clients. This objective led to the development of a table which identifies and assigns weights to eleven categories of needs most commonly evidenced in probationers and parolees. The scale, Assessment of Client Needs, presented on page 3 is primarily a product of Wisconsin probation and parole agents.

Agents involved in the development of the needs assessment scale determined that crisis needs should not be considered as classification criteria. An immediate need for shelter or meal money, for example, is usually the result of a more extensive problem such as unemployment, drug abuse or emotional stability. Although an important agent function, crisis intervention generally provides temporary solutions to problems symptomatic of more complex needs.

An extensive list of possible client needs (40 items) was prepared and used to survey incoming clients over an eight-month period in Madison. The eleven categories of needs which comprise the final scale were derived from that list and thought to cover problems most frequently encountered in probationers and parolees.

The scale was designed not only to be a classification device (assignment to a specific level of supervision), but to provide a common denominator for assessing the composite severity of problems, to aid in formulating a case plan and to provide an instrument for uniformly assessing the progress of clients.

Table 1

ASSESSMENT OF CLIENT NEEDS

Select the appropriate answer and enter the associated weight in the score column. Higher numbers indicate more serious problems. Total all scores.

				SCORE
ACADEMIC/VOCATIONAL SKILLS				
-1 High school or above skill level	0 Adequate skills; able to handle every-day requirements	2 Low skill level causing minor adjustment problems	4 Minimal skill level causing serious adjustment problems	_____
EMPLOYMENT				
-1 Satisfactory employment for one year or longer	0 Secure employment; no difficulties reported; or homemaker, student or retired	3 Unsatisfactory employment; or unemployed but has adequate job skills	6 Unemployed and virtually unemployable; needs training	_____
FINANCIAL MANAGEMENT				
-1 Long-standing pattern of self-sufficiency; e.g., good credit rating	0 No current difficulties	3 Situational or minor difficulties	5 Severe difficulties; may include garnishment, bad checks or bankruptcy	_____
MARITAL/FAMILY RELATIONSHIPS				
-1 Relationships and support exceptionally strong	0 Relatively stable relationships	3 Some disorganization or stress but potential for improvement	5 Major disorganization or stress	_____
COMPANIONS				
-1 Good support and influence	0 No adverse relationships	2 Associations with occasional negative results	4 Associations almost completely negative	_____
EMOTIONAL STABILITY				
-2 Exceptionally well adjusted; accepts responsibility for actions	0 No symptoms of emotional instability; appropriate emotional responses	4 Symptoms limit but do not prohibit adequate functioning; e.g., excessive anxiety	7 Symptoms prohibit adequate functioning; e.g., lashes out or retreats into self	_____
ALCOHOL USAGE				
	0 No interference with functioning	3 Occasional abuse; some disruption of functioning	6 Frequent abuse; serious disruption; needs treatment	_____
OTHER DRUG USAGE				
	0 No interference with functioning	3 Occasional substance abuse; some disruption of functioning	5 Frequent substance abuse; serious disruption; needs treatment	_____
MENTAL ABILITY				
	0 Able to function independently	3 Some need for assistance; potential for adequate adjustment	6 Deficiencies severely limit independent functioning	_____
HEALTH				
	0 Sound physical health; seldom ill	1 Handicap or illness interferes with functioning on a recurring basis	2 Serious handicap or chronic illness; needs frequent medical care	_____
SEXUAL BEHAVIOR				
	0 No apparent dysfunction	3 Real or perceived situational or minor problems	5 Real or perceived chronic or severe problems	_____
AGENT'S IMPRESSION OF CLIENT'S NEEDS				
-1 Minimum	0 Low	3 Medium	5 Maximum	_____

Following the selection of categories to be included on the needs assessment scale, a group of eight agents, three client services assistants (paraprofessionals) and a unit supervisor independently ranked each need according to its impact on the time required by agency personnel to deal with the problem. The results of those rankings are presented below:

Figure 1

PROBLEM RANKINGS
(Based on Agent Time Requirements)

← Least Time Required		Most Time Required →		
1. Physical Health	2. Academic/Vocational Skills Companions	3. Financial Management Marital/ Family Relationships Drug Usage Sexual Behavior	4. Employment Alcohol Usage Mental Ability	5. Emotional Stability

Weights of individual items are based on these rankings.

The system implemented requires the supervising agent to assess clients within 30 days of admission to probation or parole. Reassessments are done at six-month intervals.

Each area of need is subdivided into three or four categories; major problem, minor problem, no problem, and strength (if appropriate). As an aid to consistency in needs assessment, concise definitions were developed and assigned to each severity level (see page 3). Consistency (or reliability) in needs assessment is particularly important when the instrument is used as a classification device since "placement" (in this case, level of supervision) can be a direct result of the needs score.

Inter-rater reliability is examined in a subsequent section of this report.

VALIDITY

Professional judgment of the time each need category will require is the basis for assigning weights to each item on the needs scale. Hence, total needs scores should be indicative of the amount of time that different clients require of probation and parole staff. To determine if overall needs scores are related to time spent on probationers and parolees, needs assessment totals from 482 Madison Region clients were cross-tabulated with time devoted to each client over a two-month period. Time spent on probationers and parolees should vary within each supervision level relative to needs assessment totals if the weighting system incorporated is a valid indicator of time required by clients. The strong relationship between time and needs scores is presented in Table 2.

Table 2

RELATIONSHIP OF NEEDS SCORES TO SUPERVISION TIME

Needs Assessment Score	Low Supervision <i>(Average Minutes Per Client Per Month)</i>	Medium Supervision	Maximum Supervision	Average
9 or Less	40.0	61.9	92.4	47.7
10 - 14	45.3	90.6	105.3	79.7
15 - 19	NA	69.7	116.9	86.8
20 - 24	NA	95.4	184.3	142.0
25 - 29	NA	104.3	180.9	160.2
30 or More	NA	107.2	196.7	185.5

Generally, the average amount of time spent on clients increased relative to needs scores. In only two instances was this pattern reversed. The average time devoted to medium supervision clients with scores in the 15 to 19 range was lower than the time spent on clients in the 10 to 14 range; and less was

spent on maximum supervision clients with needs scores in the range 25 to 29 than individuals with needs assessment totals in the 20 to 24 range. Overall, the study indicated that the weighting system utilized in the needs scale presents an accurate assessment of the time needed for service delivery.

The cut-off scores initially utilized in Wisconsin were arbitrarily set by a committee of probation and parole agents and research staff with the understanding that they would be changed if experience indicated an adjustment was needed. The ranges of needs scores and the resultant supervision levels are presented below:

Low or Minimum Supervision	14 and below
Medium Supervision	15 - 29
Maximum Supervision	30 and above

Data collected during 1977 indicate that the cut-off points are possibly too high. Of the first 6,000 needs assessments completed on new clients, 51.4% totaled 14 or fewer points, 37.7% rated 15 to 29 points, and 12.3% had 30 or more points. The mean needs assessment score was 15.5 and the median score of 14 falls into the low supervision range. Lowering the cut-off scores as follows would result in approximately one-third of all clients "fitting" into each supervision level:

Low or Minimum Supervision	9 and below
Medium Supervision	10 - 19
Maximum Supervision	20 and above

More importantly, the lower cut-off scores appear to be the points at which agent time requirements change most dramatically. Table 5 provides an additional dimension to data presented in Table 2. Needs scores are again related to time study results from the Madison Region. The largest increases in time devoted to clients occur between the ranges 9 or less and 10 - 14, and between the ranges 15 - 19 and 20 - 24.

Table 3

CHANGE IN SUPERVISION TIME BY NEEDS SCORE RANGE

Needs Score Range	Average Minutes Per Month Per Client	Percent Change From Preceding Average
9 or Less	47.7	
10 - 14	79.7	67%
15 - 19	86.8	9%
20 - 24	142.0	64%
25 - 29	160.2	13%
30 or More	185.5	16%

The total sample size (482) was too small to conduct the above analysis for each needs score interval. However, subsequent time studies should produce enough data to allow management to firmly establish cut-off points for each level of supervision.

INTER-RATER RELIABILITY

Because a score on the needs assessment scale can result in assignment of a specific level of supervision, a high degree of inter-rater reliability is desirable. Extensive reliability testing was undertaken to determine if the definitions associated with each need category would result in consistency in ratings when different agents rated the same clients based on identical information.

Consideration was given to two different methods of presenting information regarding clients to agents participating in the study: Probation social reports and taped interviews. Other states have used presentence investigations or probation socials to test the reliability of classification instruments. Missouri, for example, used presentence investigations to test the reliability of a client analysis scale utilized in that state.¹

1. German, S., A.C. Mogah, and C.R. Tracer, Jr. Probation and Parole Supervision Classification: The Client Analysis Scale Jefferson City, Missouri, Spring, 1975

Agents were asked to read presentence reports and make independent ratings of each scale item. This technique, however, was rejected by Case Classification/ Staff Deployment staff on the basis that the agent writing the report had already selected the information contained in the Social; hence a percentage of any reliability statistic attained could be attributed to this factor. The CC/SD Project chose to have agents independently rate client needs based on taped interviews between client and agent. A semi-structured format (of approximately 45 minute duration) was used which in most cases covered all eleven categories of needs to be assessed. Of the nearly 200 interviews that were taped, nine were selected for use in this study. The selection was based primarily on the clarity of the tape, not on content or client characteristics. No attempt was made to use tapes where the existence and severity of problems was unusually apparent.

Groups of agents from the following locations participated in the study.

1. Eau Claire
2. La Crosse
3. Viroqua
4. Beloit
5. Milwaukee
6. Racine
7. Wausau
8. Sheboygan
9. Kenosha
10. Madison

Two assumptions were made regarding the reliability analysis:

1. Taped interviews are not ideal media for assessing inter-rater reliability. Ideally a group of agents should participate in all client and collateral contacts for the first 30 days of supervision and then independently rate client needs. However, given the time constraints of field staff, the use of taped interviews was the best method available for testing reliability.

It was assumed that because agents generally base actual needs assessments on more than one contact and on more information than was presented in the interview, agreement on the existence or non-existence of a problem (rather than level of severity) would be sufficient as a measure of inter-rater reliability.

2. Certain need categories would be difficult to assess without verifying evidence. For example, if an individual was suspected of having mental deficiencies which severely limit independent functioning, agents would generally request intelligence testing for that client to determine the extent of the problem. Therefore, it was assumed that the reliability figure attained for some items (emotional stability, mental ability, and sexual behavior) would be lower than reliability attained in actual practice.

The results of the analysis are presented in Table 4. Each statistic represents the percentage of raters who agreed on the existence or non-existence of a particular problem for each client. (The rating cited by the majority of agents was considered the "correct answer." In only one instance did half of the raters decide a need existed while half agreed there was no problem.) The overall percentage of agreement (87%) is considered by CC/SD staff to be quite acceptable for a subjective scale.

Including each agent's rating of the severity of each scale item, the percentage of agreement decreased 7%. The overall agreement for each item is presented in Table 5.

Table 4

PROBLEM/NO PROBLEM CHOICE
Percentage of Agreement

N=	54	54	49	57	45	48	46	47	49	449
Need Category	Tape A	Tape B	Tape C	Tape D	Tape E	Tape F	Tape G	Tape H	Tape I	Average
Acad/Voc Skills	87	NA	76	70	91	100	98	81	100	88
Employment	100	91	NA	98	96	85	100	62	84	90
Financial Mgt.	98	87	90	98	100	98	100	96	73	93
Mar/Fam. Relat.	87	78	NA	95	100	50	100	100	92	86
Companions	83	91	80	88	93	88	95	83	98	89
Emot. Stab.	69	73	71	79	100	58	100	87	77	79
Alcohol Usage	96	80	96	86	100	98	82	100	92	94
Drug Usage	67	83	NA	82	100	100	100	86	85	91
Mental Ability	69	NA	86	NA	76	77	76	58	82	79
Health	100	100	100	91	NA	84	96	62	96	89
Sexual Behav.	98	94	100	96	64	89	75	55	83	84
Average	85	86	87	88	92	84	93	79	87	87

NOTE: NA in any column signifies that the interview did not present sufficient information to rate that item.

N = number of agents that rated each taped interview.

Table 5

AGREEMENT BY SEVERITY LEVEL

Need Category	Percentage of Agreement
Academic/Vocational Skills	82%
Employment	81%
Financial Management	79%
Marital/Family Relationships	76%
Companions	82%
Emotional Stability	70%
Alcohol Usage	92%
Drug Usage	80%
Mental Ability	70%
Health	81%
Sexual Behavior	<u>84%</u>
Average	80%

MILWAUKEE STUDY SUPPLEMENT

Early in 1977, data indicated that Milwaukee agents were rating clients lower on the Needs Assessment Scale than were their counterparts in other Wisconsin locations. (See Table 6) This ran counter to a long standing assumption that Milwaukee clients were generally the most difficult cases on supervision in Wisconsin, both in terms of needs and risk of continued criminal behavior. Profiles, derived from data (other than need scale items) collected at admission to probation or parole tend to support their assumption. Hence, a study was undertaken to determine why Milwaukee clients were receiving lower needs assessments.

Table 6

NEEDS ASSESSMENT SCORES BY REGION
(First Four Months, 1977)

Region	N	Needs Assessment Scores		
		14 or Less	15 - 29	30 or More
Milwaukee	715	54.7%	34.8%	10.5%
Madison	358	41.6%*	43.9%*	14.5%*
Waukesha	435	53.3%	34.0%	12.7%
Green Bay	436	42.9%*	42.2%*	14.9%*
Eau Claire	<u>457</u>	<u>46.6%*</u>	<u>36.3%</u>	<u>17.1%*</u>
Total	2401	48.8%	37.7%	13.5%

*Percentages are significantly different than Milwaukee percentages (.05 level).

Specific conditions in Milwaukee which were hypothesized to be possible contributors to the difference in needs assessments were analyzed extensively. These included:

1. A possible difference in community norms between Milwaukee and smaller Wisconsin communities.
2. The relative inexperience of Milwaukee agents due to a staff turnover rate of nearly four times that of other regions.
3. Higher caseloads in Milwaukee; the product of a higher client to agent budgeting ratio and the higher staff turnover rate.

Agents from four Milwaukee units participated in the reliability study described in an earlier section of this report. Four taped interviews rated by Milwaukee staff were also rated by agents from Racine, Beloit, Viroqua and La Crosse. Using these ratings, an analysis of the effects of community norms was undertaken. The results are presented in Table 7.

Table 7

COMPARISON OF MILWAUKEE/OUT-STATE OVERALL ASSESSMENTS

	Milwaukee Average Needs Assessment Rating	Out-State Average Needs Assessment Rating
Tape F	18.65	15.90
Tape G	35.30	35.73
Tape H	23.26	21.24
Tape I	19.48	20.11

If a difference in community norms contributed to the lower overall needs assessment scores given Milwaukee clients, one could expect lower overall ratings of the four study clients by Milwaukee agents. This clearly was not the case. In fact, Milwaukee staff gave two of the four clients higher overall ratings, and statistically, the mean scores from the two groups of raters were not significantly different for any of the tapes.

To further determine the effects of community norms, one additional analysis was undertaken. Most of the difference between the average needs score of Milwaukee clients and the average needs score of clients in other regions could be attributed to lower ratings on two scale items, marital/family relationships and companions. Again, to determine if the lower ratings were due to a difference in community norms, scores given these two items by Milwaukee agents were compared with assessments given by out-state agents. The results are presented in Table 8.

Table 8

COMPARATIVE ASSESSMENTS OF MARITAL/FAMILY
RELATIONSHIPS AND COMPANIONS

Need Category	Average Scores			
		Milwaukee Agents	Out-State Agents	
Marital/Family Relationships				
	Tape F	23	1.78	1.12
	G	23	4.73	4.91
	H	23	4.65	4.58
	I	23	3.69	3.77
Companions				
	Tape F	25	0.17	-0.08
	G	23	1.91	2.26
	H	24	2.26	1.50
	I	26	2.17	2.23

The mean ratings of each of the two groups were not significantly different for any of the four client rated. The results of above analyses clearly indicate that if there is a difference in community norms, it has no impact on needs assessment totals.

A similar analysis was conducted to determine if the experience levels of agents affect the rating of client needs. The results of this analysis are presented in Table 9. The absence of a discernable pattern (moving from the group with less than one year experience to the group with three or more years on the job) indicates that the level of experience does not affect needs assessment scores. Again no set of means was found to be significantly different.

Table 9

COMPARATIVE ASSESSMENTS OF AGENTS
GROUPED BY LEVEL OF EXPERIENCE

	Average Scores		
	Less Than 1 Yr. Experience	1 - 3 Yrs.	3 Yrs. or More
Tape F	16.9	16.4	17.6
Tape G	35.7	36.6	34.7
Tape H	20.4	23.0	22.5
Tape I	21.5	19.6	19.2

An earlier project report, Report #5, Results of Agent Time Studies, compared time study data collected in Milwaukee with data from the Madison and Eau Claire Regions. This study found that due to higher caseloads, Milwaukee agents in general spend less time with each client. It was also noted that as caseloads increased, less time was devoted to case planning; that agents become crisis oriented, having little time to plan effectively or to make the type of collateral contacts necessary to develop a comprehensive case plan.

Without sufficient time to thoroughly investigate a client's situation and circumstances, agents cannot properly rate the needs of their clients. Therefore it was hypothesized that the lower needs assessments given Milwaukee clients were the result of higher caseloads.

To determine the relationship between needs scores and caseload, agents from metropolitan areas outside of Milwaukee were aggregated by the number of clients each supervised (averaged over a four-month period) and comparisons were made of the average scores given clients (also over the same four-month period).

The results of this analysis listed in Table 10, show an obvious inverse relationship between caseload size and needs assessment totals. The average score given by agents with caseloads of 65 or more clients was nearly 5 points lower than the average score given by agents supervising 34 or fewer clients. Only between the caseload aggregates 55 - 59 and 60 - 64 was the pattern reversed. However, for the next group, 65 and over, the average needs score is lower than the average score reported for both preceding groups.

Table 10

RELATIONSHIP OF CASELOAD SIZE
AND NEEDS ASSESSMENT TOTALS

Caseload Size	Average Needs Score	Number of Agents	Clients Assessed
Under 35	19.32	12	37
35 - 39	18.23	17	48
40 - 44	17.25	16	65
45 - 49	17.11	14	65
50 - 54	15.15	19	97
55 - 59	14.87	9	53
60 - 64	15.61	17	106
65 and Over	<u>14.44</u>	<u>8</u>	<u>36</u>
Total	16.28	112	507

In July, 1977 the Bureau of Community Corrections began efforts to equalize caseloads throughout Wisconsin. Rather than deploying staff at a 60:1 ratio in Milwaukee and 44:1 in other regions, all staff was deployed at approximately a 51:1 client to agent ratio. This effort has gradually reduced the differences between Milwaukee caseloads and caseloads in other areas.

Caseload equalization should lead to more consistent ratings of client needs throughout Wisconsin. Table 11 indicates that such a trend is already noticeable. Table 11 is an updated version of Table 6 which includes needs assessment totals on new clients through November 1977. The number of clients given 14 or fewer points on the needs scale outside of Milwaukee increased substantially as caseloads rose. Generally, the difference in needs assessment scores between Milwaukee and out-state clients diminished as caseloads became more similar.

Table 11

NEEDS ASSESSMENT TOTALS BY REGION

First Eleven Months, 1977

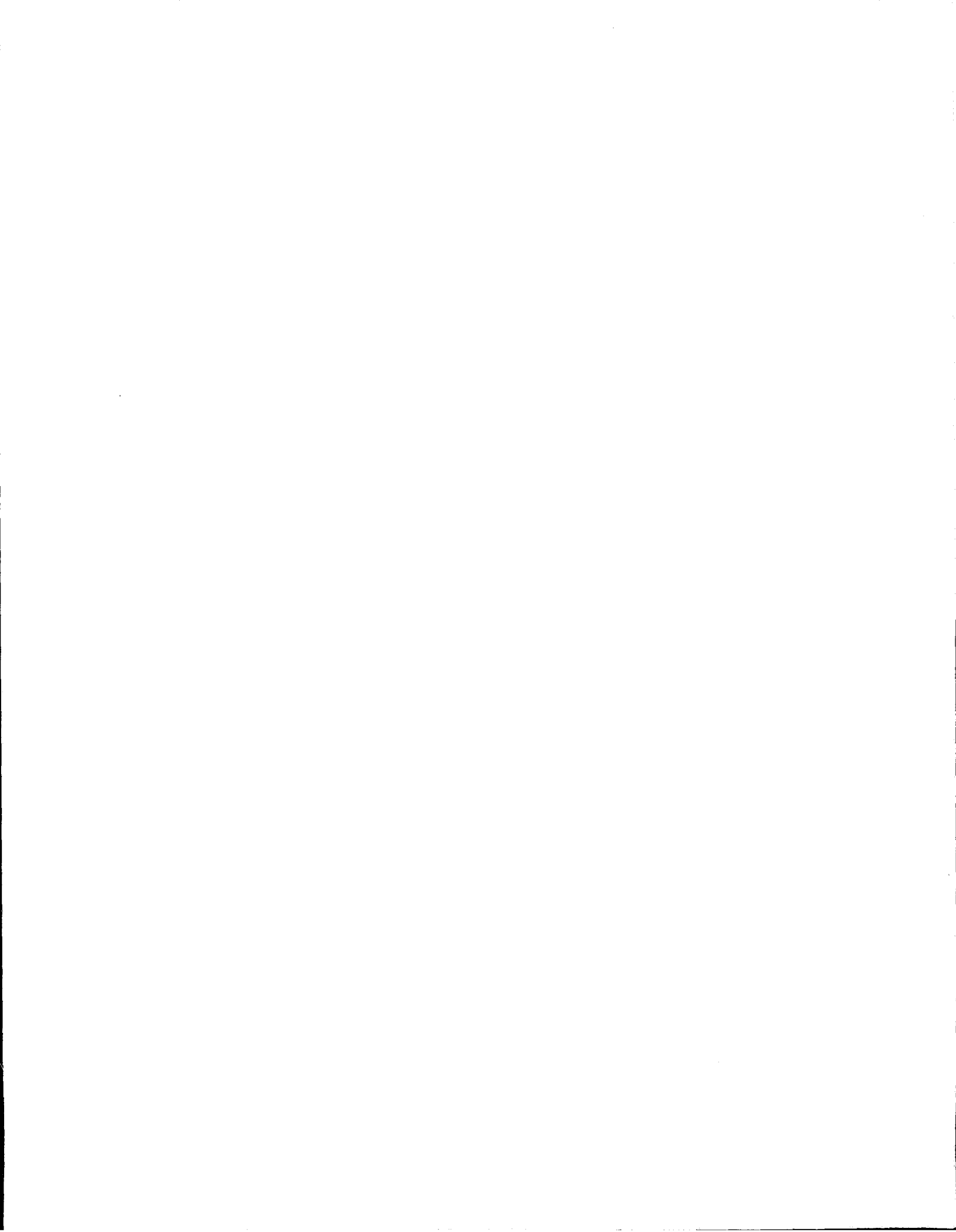
Region	N	14 or Less	15 - 29	30 or More
<i>Milwaukee</i>	1834	53.5	36.3	10.1
Madison	925	48.0	40.0	12.0
Waukesha	977	55.7	33.7	10.6
Green Bay	786	48.6	36.9	14.5
Eau Claire	847	47.9	35.1	17.0

SUMMARY

The analysis of the Needs Assessment Scale indicates that it is a valid and reliable instrument because of the strong positive correlation between needs scores and time requirements, and the high degree of inter-rater reliability demonstrated. Some adjustments to the cut-off points currently being used may be appropriate, however.

Currently, workloads of Wisconsin agents vary considerably which is reflected in needs assessment scores. As workloads go up, agents have less time to properly assess client needs. Reliability of the instrument will be maximized when equalization of workload is established state-wide.

Neither community norms nor experience levels of agents have any perceivable influence on the needs scores.



END