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ABSTRACT

The United States Training and Employment Service General Aptitude Test Battery (GATB), first published in 1947, has been included in a continuing program of research to validate the tests against success in many different occupations. The GATB consists of 12 tests which measure nine aptitudes: General Learning Ability; Verbal Aptitude; Numerical Aptitude; Spatial Aptitude; Form Perception; Clerical Perception; Motor Coordination; Finger Dexterity; and Manual Dexterity. The aptitude scores are standard scores with 100 as the average for the general working population, and a standard deviation of 20. Occupational norms are established in terms of minimum qualifying scores for each of the significant aptitude measures which, when combined, predict job performance. Cutting scores are set only for those aptitudes which aid in predicting the performance of the job duties of the experimental sample. The GATB norms described are appropriate only for jobs with content similar to that shown in the job description presented in this report. A description of the validation sample is included. (AG)

TECHNICAL REPORT

ON

STANDARDIZATION OF THE GENERAL APTITUDE TEST BATTERY

FOR

COLD MILL OPERATOR 4-88.018
HOT MILL OPERATOR 4-88.018
PAYOFF OPERATOR 6-94.821
REWIND OPERATOR 6-94.822
SLITTING-MACHINE OPERATOR II 6-94.205

B-352 or S-98

U. S. Employment Service in
Cooperation with
California State Employment Service

U. S. DEPARTMENT OF LABOR
Bureau of Employment Security
Washington 25, D. C.
March 1957

GATB #2115
Spring 1956

STANDARDIZATION OF THE GENERAL APTITUDE TEST BATTERY FOR COLD MILL OPERATOR 4-88.018 HOT MILL OPERATOR 4-88.018 PAYOFF OPERATOR 6-94.821 REWIND OPERATOR 6-94.822 SLITTING-MACHINE OPERATOR II 6-94.205

B-352 or S-98

Summary

The General Aptitude Test Battery, B-1002A, was administered to a sample of 51 men employed at the Hunter Douglas Corporation plant in Riverside, California in one or more of the following occupations: Cold Mill Operator 4-88.018, Hot Mill Operator 4-88.018, Payoff Operator 6-94.821, Rewind Operator 6-94.822 of Slitting-Machine Operator II 6-94.205. The criteria consisted of supervisory ratings expressed in broad categories and in rank order. On the basis of mean scores, standard deviations, correlations with the criteria, job analysis data and their combined selective efficiency, Aptitudes S-Spatial Aptitude, P-Form Perception, F-Finger Dexterity and M-Manual Dexterity were selected for inclusion in the test norms.

GATB Norms for Cold Mill Operator 4-88.018, Hot Mill Operator 4-88.018, Payoff Operator 6-94.821, Rewind Operator 6-94.822, and Slitting-Machine Operator II 6-94.205 - B-352 or S-98

Table I shows, for B-1001 and B-1002, the minimum acceptable score for each aptitude included in the test norms for B-352 or S-98

TABLE I

Minimum Acceptable Scores on B-1001 and B-1002 for B-352 or S-98

B-1001			B-1002		
Aptitude	Tests	Minimum Acceptable Aptitude Score	Aptitude	Tests	Minimum Acceptable Aptitude Score
S	CB-1-H CB-1-F	85	S	Part 3	80
P	CB-1-A CB-1-L	80	P	Part 5 Part 7	80
F	CB-1-O CB-1-P	90	F	Part 11 Part 12	85
M	CB-1-M CB-1-N	90	M	Part 9 Part 10	85

Effectiveness of Norms

The data in Table IV indicate that 13 of the 16 poor workers, or 81 percent of them, did not achieve the minimum scores established as cutting scores on the recommended test norms. This shows that 81 percent of the poor workers would not have been hired if the recommended test norms had been used in the selection process. Moreover, 26 of the 29 workers who made qualifying test scores, or 90 percent, were good workers.

TECHNICAL REPORT

I. Problem

This study was conducted to determine the best combination of aptitudes and minimum scores to be used as norms on the General Aptitude Test Battery for the occupations of Cold Mill Operator 4-88.018, Hot Mill Operator 4-88.018, Payoff Operator 6-94.821, Rewind Operator 6-94.822 and Slitting-Machine Operator II 6-94.205.

II. Sample

The GATB, B-1002A, was administered to 60 male workers employed at the Hunter Douglas Corporation plant in Riverside, California in one or more of the following occupations. Cold Mill Operator 4-88.018; Hot Mill Operator 4-88.018; Rewind Operator 6-94.822; Payoff Operator 6-94.821; and Slitting-Machine Operator II 6-94.205. All parts of the GATB, B-1002A, except Parts 1 and 2 were administered to the 60 workers during December 1955. Parts 1 and 2 of the GATB were administered during February 1956 to 51 of the 60 workers. The final sample includes the 51 men who had been given all parts of the GATB, B-1002A.

Training consists of on-the-job instruction. Workers can achieve satisfactory production on one or more phases of the job in approximately two months. Company officials estimate that it takes 6 months to train a worker to the point where he is proficient in all of the jobs covered by this test development study.

Workers are selected on the basis of a personal interview. The company prefers to hire high school graduates; however, the basic requirement is that all workers speak, read and write English.

Table II shows the means, standard deviations, ranges, and Pearson product-moment correlations, with the criteria for age, education and experience.

TABLE II

Means (M), Standard Deviations (σ), Ranges, and Pearson Product-Moment Correlations with the Criteria (σ_r and r) for Age, Education and Experience

Cold Mill Operator 4-88.018
Hot Mill Operator 4-88.018
Payoff Operator 6-94.821
Rewind Operator 6-94.822
Slitting-Machine Operator II 6-94.205

N = 51

	M	σ	Range	σ_r	r
Age (years)	26.9	4.9	20-48	-.329*	-.174
Education (years)	11.1	1.3	8-15	.188	.116
Experience (months)	21.1	11.7	2-44	-.085	.059

* Significant at the .05 level

The negative correlation between age and the criterion consisting of broad category ratings is significant at the .05 level, which may indicate that the younger workers tend to be the best workers and/or that the raters were biased in favor of the younger workers. Six of the 51 workers in the sample had less than the 6 months of experience which the company officials consider to be the minimum time required to become proficient on all of the jobs in this study. However, each of these workers had had at least the two months of experience required to become proficient on one or more phases of the job and their performances could be rated for test development purposes. The data in Table II indicate that this sample is suitable for test development purposes with respect to age, education and experience.

III. Job Descriptions

Job Titles: Cold Mill Operator 4-88.018
Hot Mill Operator 4-88.018
Payoff Operator 6-94.821
Rewind Operator 6-94.822
Slitting-Machine Operator II 6-94.205

Job Summary: Performs one or more of the following duties to produce finished rolls of aluminum venetian blind strips: Slits aluminum stock to precise size by operating a Slitting Machine; trims and reduces thickness of aluminum strips by operating a Cold Roll Machine; reduces thickness of heat treated aluminum strips by operating a Heat Roll Machine; pre-treats, paints and forms aluminum strip stock into finished rolls of aluminum venetian blind strips using special equipment. Sets up and adjusts machines; sets levers and treadles; uses electric hand cutters to cut and trim aluminum stock; manually feeds aluminum stock into machines; inspects aluminum strips for defects and checks them with micrometer; makes any additional machine adjustments required to insure that strips will conform to specifications. Maintains machines in good working order.

Cold Mill Operator

Work Performed: Trims and reduces thickness of aluminum strips by operating a four, five, or six stand Cold Roll Machine: Lifts roll of stock from supply rack with air hoist and positions it in stock holder. Trims portion from end of strip with hand cutter, and inserts the trimmed end between feed rollers. Adjusts hand controls on each stand to set reducing rollers proper distance apart and to heat them to specified temperatures. Tests water and water soluble oil solution with test tube to determine if solution mixture is according to specifications, and corrects any variation. Sets cutting tools for proper trim, and adjusts water and water soluble oil flow. Starts machine, observes operation, and makes additional adjustments if necessary. Returns to load and prepare a reserve roll of stock in supply holder. Stops machine at end of cycle, approximately 15 minutes, kicks finished roll of strip off onto roll catch with air-off ram button, and pushes it aside. Returns to other end of machine, brings next roll into position, inserts end of roll between rollers, and starts machine. Returns to finished roll, unrolls a sample section by hand, inspects visually and by micrometer for uniformity, and makes any necessary adjustments. Rerolls sample, measures with a rule graduated in degrees of weight, and posts lot number and weight on a label. Secures moist gummed piece of paper tape from tape machine on desk, and with label attached, tapes free end of strip to roll. Marks lot number and specifications on finished roll with master pen. Transfers finished roll onto suspended hook attached to slow moving overhead conveyor chain, or to a holding rack. Repeats loading and unloading operations, and inspects each completed roll. Walks up and down, or stands at various positions along length of machine to observe operations. Posts simple records on material received and output. Pulls out scrap trim material from bed of machine with small hooked hand tool, approximately every 20 minutes, and discards in scrap box. Changes cutting tools when they become dull or defective, and adjusts for proper trim. Dresses reducing rollers with a diamond pointed hand tool, approximately two times during a shift.

Hot Mill Operator

Work Performed: Reduces thickness of heat treated aluminum strips by operating a Heat Roll Machine: Lifts roll of stock from supply rack with overhead air hoist, positions it in roller rack mounted on tracks, with free end up, facing oven. Clips free end of strip in a cast iron holder, and places holder on top of roll. Opens air-operated oven door and rolls rack into oven. Repeats operation until oven is loaded with 9 to 15 racks. Closes oven door, and adjusts temperature. Adjusts hand controls to set reducing rollers proper distance apart, and to heat them to specified temperature. Tests water and water soluble oil solution with test tube, to determine if solution mixture is according to specifications, and corrects any variation. Adjusts flow and level to bring liquid within six inches from top of tank. Picks up cast iron core wheel, on which finished strip will wind, and positions it on rewind spindle. Returns to oven, reaches into oven with small hooked hand tool, and pulls out holder with end of stock attached. Removes holder with gloved hand, cuts off portion of strip with hand cutters to remove bent ends, and inserts end of strip between feeding rollers. Pushes start and stop buttons to "inch" material through machine, observing machine operation and making additional adjustments where necessary. Cuts off portion of processed strip with hand cutters, inspects visually and by micrometer to determine if machine set up is to specifications, and makes any adjustments needed. Starts machine and stands at various positions along machine to observe operations. Stops machine at end of cycle, apporximately 15 minutes, kicks finished roll of strip from spindle onto roll stock catch with air-off ram button, pushes it aside, and installs another core wheel on rewind spindle. Returns to other end of machine, repeats process of securing and trimming strip from oven, inserting end between feeding rollers, and starting machine. Returns to finished roll, unrolls a sample section by hand, inspects visually and by micrometer for uniformity, and makes any additional adjustments if necessary. Rerolls sample on wheel, measures with rule graduated in degrees of weight, and posts weight, lot number, and specification on a label. Secures moist gummed piece of paper tape from tape machine on desk, and with label attached, tapes free end of strip to roll. Marks lot number and specifications of finished roll with master pen. Transfers finished roll onto suspended hook, attached to slow moving overheat conveyor chain, or to a holding rack. Repeats loading and unloading operation, and inspects each completed roll. Posts simple records of material received and output. Dresses reducing rollers with a diamond pointed hand tool, approximately two times during a shift.

Payoff Operator

Work Performed: Pre-treats aluminum strip stock: Inspects visually each roll of aluminum stock in supply rack for defects. Marks any defective roll with a pink rejection slip, and by overhead air hoist, places roll aside in a rack to be returned. Adjusts hand valves to regulate pressure of steam through coils of degreasing tank, and to regulate water spray in rinse tank. Checks temperature of acid tank, and reports any deviation from specification

to the leadman. Contacts over inter-com system, rewind operator at other end of the line, and upon mutual agreement, rewind operator starts machine. Adjusts tension and tracking of strip so that it runs in center of rollers. Walks along machine, approximately 50 feet, observes operation, and makes any additional adjustments necessary. Returns to supply rack, lifts a roll of stock from supply rack with over-head hoist, positions it in the back reserve section of one side of the dual trough-shaped supply holder, and behind roll running through machine. Trims corners from end of strip with stationary hand cutter, to facilitate threading of machine, and inserts the trimmed end into small annealing heat box above supply holder. Repeats operation on other side of supply holder. Inserts heated end of reserve roll over strip running through machine; when one roll is nearly exhausted, pulls hand lever to splice both strips together, and to cut off old strip. Performs same splicing operation on other side of supply holder when that roll is nearly exhausted. Pushes both rolls of stock into front position of supply holder, and repeats operation of loading back reserve sections of supply holder with two more reserve rolls of stock. Repeats splicing and reloading operations approximately every 55 minutes. Adds acid to acid tank each hour, checks temperature, and posts the information to acid addition record. Changes degreasing pads in degreasing tank approximately two times during shift. Changes squeegee rollers in rinse tank when they fail to wipe properly. Works with rewind operator to repair any splice that separates. Runs two or three machines at a time, and is responsible for keeping equipment and area clean.

Rewind Operator

Work Performed: Paints and forms aluminum strip stock into finished rolls of venetian blind strips: Sets up machine by adjusting guide rollers, former rollers, paint rollers and paint flow from pressure tank, according to specifications. Adjusts footage meters to ring a bell when rewind spindles have within 10 feet of the required footage. Contacts Payoff Operator at other end of line by inter-com system, and upon mutual agreement, starts up machine. Adjusts tension and tracking of strip so that it runs in center of rollers. Walks along machine, observes operation, and makes any additional adjustments necessary. Pushes finished Roll Catch Cart, mounted on a track, into position in front of rewind spindle. When bell rings, allows 10 additional feet of strip to wind on spindle. Cuts strip with hand cutters, and steps on air treadle which automatically dumps roll forward onto finished roll catch cart. Cuts off additional strip, approximately 4 feet in length for a sample, and guides running strip onto and around rewind spindle. Inserts pre-stamped specification ribbon ticket between winding strip, and pushes finished roll catch cart across aisle to other machine. Inspects sample visually for finish and color. Measures convex side of sample with a gauge, runs sample through a machine, flattens it out, and inserts it between pegs on wooden board to check if width is according to specifications. Secures moist gummed piece of paper tape from tape machine on roll catch cart, and tapes free end of strip to roll. Inserts plastic core in roll, picks up roll by hand and stands it upright on skid. Holds roll with one hand, and with other hand, removes pre-folded cardboard box from rack, stands box on end, rolls finished roll into box, and lays box flat on skid. Repeats operation of unloading, inspecting a sample, and boxing when next bell rings. Hauls skid back to box

sealing unit, when skid has 12 boxes of finished rolls, and replaces with empty skid, by operating hand lift truck. Determines when to shut down, and reason for shut down. Cuts out defective material, marks reason for defect, line number, operator number, date, and sets defective roll aside. Cuts out the defective material while machine is running if defective material, which is coming through is not caused by paint line, and/or is only a temporary condition. Keeps footage records of production, scrap and the reason therefore, and total output. Makes own wash up, and completes change of color when color specifications are changed. Inspects rubber paint rollers for defects during wash up and replaces them if necessary. Stamps specification on ribbon tickets, and on the pre-folded boxes prior to, and/or during shift. Runs two machines, each of which rewinds two rolls at a time, and is responsible for keeping equipment and area clean.

Slitting-Machine Operator II

Work Performed: Slits aluminum stock into strips by operating a Slitting Machine: Sets up machine to trim 1/2" from each side of 7" width of stock, and slits stock in three equal strips, or to precise width. Lifts roll of stock from a supply rack with overhead air hoist, and positions it in a trough-shaped holder with free end up facing slitting machine. Cuts portion of stock from both outside and inside end of roll with an electric hand cutter to remove marred or damaged material, and discards in scrap box. Bends portion of outside roll of stock straight with hands to facilitate threading of stock into machine. Trips treadle, allowing stock to roll in position at front of holder. Unlocks hand lever and opens feeding rollers. Inserts end of stock between rollers, and locks rollers in place. Adjusts oil bath flow, starts machine, allows short run, and stops machine. Inspects strips visually and by micrometer and makes adjustments necessary to meet specifications. Starts machine and guides strips as they emerge with right hand to form first roll in jig holder. Observes machine operations, and when machine is performing properly, returns to repeat loading and prepares next roll of stock in supply holder. Positions stock in supply holder behind roll running through machine, and against trip treadle stop bar. Stops machine at end of cycle, approximately 5 minutes, lifts finished rolls of strip from holder at end of machine with hoist, and simultaneously with left hand, unlocks hand lever and opens feeding rollers. Returns to stock supply holder, trips treadle allowing stock to roll in position, inserts end between rollers, locks rollers in place, and starts machine. Returns to finished roll on hoist, unrolls a sample section by hand, inspects visually and by micrometer for uniformity, and makes any adjustments necessary. Rerolls sample and positions finished roll in rack at side of machine. Repeats process of loading and unloading machine, and inspecting each completed roll. Posts simple records on material received and output. Changes cutting tools when they become dull or defective, and adjusts for proper trim. Replaces trim scrap box when full with empty box, by operating hand lift truck.

IV. Experimental Battery

All of the tests of the GATB, B-1002A, were administered to the sample group.

V. Criterion

The criteria consisted of supervisory ratings expressed in broad categories and of rank order supervisory ratings.

A. Broad Category Ratings: The broad category ratings were prepared by first and second line supervisors as of December 1955. Each worker was placed in one of the following three categories: "Above Average," "Average," or "Below Average." These broad category ratings were converted into quantitative scores. The "above average" group with 18 workers, the "average" group with 17 workers and the "below average" group with 16 workers were assigned scores of 61, 49 and 39, respectively.

B. Rank Order Ratings: The supervisors did not feel qualified to prepare rank order ratings of the workers without some guidelines. The supervisors were provided with a merit rating form to be used as an aid in establishing a preliminary set of rank order ratings. Ratings on quality and quantity of production were made on the merit rating form and numerical scores derived from these ratings served as a basis for establishing the preliminary set of rank order ratings. The final rank order ratings were established by the conference method in January 1956. The ranks were converted to linear scores for computational purposes.

A correlation coefficient of .69 was obtained between the broad category ratings and the rank order ratings.

VI. Statistical and Qualitative Analysis

Table III shows the means, standard deviations and Pearson product-moment correlations with the criteria for the aptitudes of the GATB. The means and standard deviations of the aptitudes are comparable to general population norms with a mean of 100 and a standard deviation of 20.

TABLE III

Means (M), Standard Deviations (σ), and Pearson Product-Moment Correlations with the Criteria ($_cr$ and r) for the Aptitudes of the GATB

Cold Mill Operator 4-88.018
Hot Mill Operator 4-88.018
Payoff Operator 6-94.821
Rewind Operator 6-94.822
Slitting-Machine Operator II 6-94.205

N = 51

Aptitudes	M	σ	$_cr$	r
G-Intelligence	100.5	14.3	.071	.138
V-Verbal Aptitude	96.3	13.4	-.001	.169
N-Numerical Aptitude	97.4	15.9	.098	.137
S-Spatial Aptitude	105.5	17.6	.115	.106
P-Form Perception	96.8	14.5	.427**	.340*
Q-Clerical Perception	98.9	11.6	.204	.219
K-Motor Coordination	100.6	14.9	.215	.063
F-Finger Dexterity	94.6	15.9	.352*	.249
M-Manual Dexterity	103.5	17.3	.291*	.044

** Significant at the .01 level
* Significant at the .05 level

The statistical results were interpreted in the light of the job analysis data. The job analysis indicated that the following aptitudes measured by the GATB appear to be important for these occupations.

Form Perception (P) - required in the visual inspection of sample strips for color and shading at the end of the paint line and in the inspection of rolls during the slitting and rolling operations for uniformity and freedom from defects such as roll marks.

Finger Dexterity (F) - required in the manipulation of precision measuring instruments and in handling and fingering sample strips of aluminum stock when making inspections.

Manual Dexterity (M) - required in handling chain hoists and control levers, guiding aluminum strips into machine and onto rewind coils, changing and adjusting cutting tools, and in handling small hand tools.

The highest mean scores in descending order of magnitude were obtained for Aptitudes S, M, K and G, respectively. All of the aptitudes have standard deviations of less than 20. Aptitude Q has the lowest standard deviation.

For a sample of 51 cases, correlations of .358 and .276 are significant at the .01 level and the .05 level of confidence, respectively. Aptitude P correlates significantly at the .01 level and Aptitudes F and M correlate significantly at the .05 level with the criterion consisting of ratings in broad categories. Aptitude P also correlates significantly at the .05 level with the criterion consisting of rank order ratings. Aptitudes S, P, F and M were considered for inclusion in the test norms on the basis of the qualitative and quantitative factors cited above: Aptitudes P, F and M appeared to be important on the basis of job analysis data and showed significant correlation with the criterion consisting of ratings expressed in broad categories; Aptitude P also correlated significantly with the rank order ratings criterion; and Aptitudes S and M exhibited the highest mean scores for this sample.

Tetrachoric correlations with the criterion consisting of ratings expressed in broad categories were computed for several sets of trial norms consisting of various combinations of Aptitudes S, P, F and M and appropriate cutting scores. The broad category ratings, rather than the rank order ratings, were selected for this purpose because the broad categories provided a logical point of dichotomy between the "Below Average" and "Average" workers. Norms which included all four of these aptitudes yielded good selective efficiency.

The cutting score for Aptitude S was set at one and one-half standard deviation units below the mean and rounded to the nearest five-point score level. The cutting scores for Aptitudes P and M were set at one standard deviation below their respective mean scores and rounded to the nearest five-point score levels. For Aptitude F the cutting score was set at one-half standard deviation below the mean and rounded to the nearest adjacent five-point score level. Setting cutting scores at these levels yielded good selective efficiency for the norms and resulted in scores of 80, 80, 85 and 85 for Aptitudes S, P, F and M, respectively.

For the purpose of computing the tetrachoric correlation coefficient between the test norms and the criterion and applying the Chi Square test, the criterion was dichotomized with those workers rated as "Above Average" and "Average" placed in the high criterion group, and with those rated as "Below Average" placed in the low criterion group. This resulted in 16 of the 51 workers, or 31 percent of the sample, being placed in the low criterion group.

Table IV shows the relationship between test norms consisting of Aptitudes S, P, F and M with critical scores of 80, 80, 85 and 85, respectively, and the dichotomized criterion for Cold Mill Operator 4-88.018, Hot Mill Operator 4-88.018, Payoff Operator 6-94.821, Rewind Operator 6-94.822 and Slitting-Machine Operator II 6-94.205. Workers in the high criterion group have been designated as "good workers" and those in the low criterion group as "poor workers."

TABLE IV

Relationship between Test Norms Consisting of Aptitudes S, P, F and M with Critical Scores of 80, 80, 85 and 85, Respectively, and the Criterion for Cold Mill Operator 4-88.018, Hot Mill Operator 4-88.018, Payoff Operator 6-94.821, Rewind Operator 6-94.822 and Slitting-Machine Operator II 6-94.205

N = 51

	Non-Qualifying Test Scores	Qualifying Test Scores	Total
Good Workers	9	26	35
Poor Workers	13	3	16
Total	22	29	51

$r_{tet} = .77$ $\quad \chi^2 = 11.635$

$\sigma_{r_{tet}} = .23$ $\quad P/2 < .0005$

The data in the above table indicate a high and significant relationship between the test norms and the criterion for this sample.

VIII. Conclusions

On the basis of mean scores, correlations with the criterion, job analysis data and their combined selective efficiency, Aptitudes S, P, F and M with minimum scores of 80, 80, 85 and 85, respectively, are recommended as B-1002 norms for the occupations of Cold Mill Operator 4-88.018, Hot Mill Operator 4-88.018, Payoff Operator 6-94.821, Rewind Operator 6-94.822 and Slitting-Machine Operator II 6-94.205. The equivalent B-1001 norms consist of S-85, P-80, F-90 and M-90.

IX. Determination of Occupational Aptitude Pattern

When the specific test norms for an occupation include four aptitudes, only those occupational aptitude patterns which include three of those four aptitudes with cutting scores that are within 10 points of the cutting scores established for the specific norms are considered for that occupation. Four of the existing 22 occupational aptitude patterns meet these criteria for this study. These occupational aptitude patterns and their B-1002 norms are OAP-13, S-75, P-75, M-75; OAP-14, S-80, F-90, M-85; OAP-16, P-75, F-80, M-80 and OAP-22, S-85, P-90, F-85. The selective efficiency of each of these

OAP's for this sample was determined by means of the tetrachoric correlation technique. Significant relationships were obtained between OAP-14 and OAP-16 and the dichotomized criterion, and each of these two OAP's screened out a proportion of the sample that was within the required range of .10 to .60. However, the highest tetrachoric correlation, .76 with a standard error of .23, was obtained for OAP-22. The proportion of the sample screened out by OAP-22 was .53. Therefore, it is recommended that OAP-22 be used in counseling for the occupations of Cold Mill Operator 4-88.018, Hot Mill Operator 4-88.018, Payoff Operator 6-94.821, Rewind Operator 6-94.822 and Slitting-Machine Operator II 6-94.205.