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Shortening the MEOCS Using Item Response Theory

by

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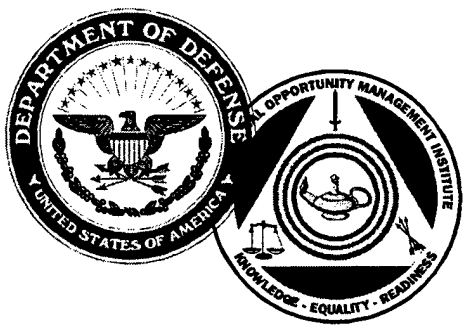
Summer 2000



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ABSTRACT

Item response theory was used to examine the items that comprise the five versions of the MEOCS: the Standard MEOCS, the MEOCS-LITE, the SLEOCS, the MEOCS-EEO, and the SUEOCS. Attempts were made to reduce scales to five items with good discriminability and an internal consistency of .75. Using these criteria, recommendations are made about which scales are acceptable (i.e., meet these criteria on at least four versions of the MEOCS), possibly acceptable (i.e., meet these criteria on one or two versions of the MEOCS), marginal (i.e., whose discriminabilities or reliabilities are near the cutoff values), and unacceptable (i.e., do not meet these criteria). Directions for future research are presented.

Summer 2000

Introduction

Concern about the equal opportunity (EO) climate in the military led to the formation of the Defense Race Relations Institute (DRRI) in 1971, which became the Defense Equal Opportunity Management Institute (DEOMI) in 1978 due to the expansion of its mission. DEOMI's major research project has been the development and testing of the Military Equal Opportunity Climate Survey (MEOCS; Landis, Dansby, & Faley, 1993). Almost from the beginning there has been concern about revising the MEOCS. For example, Dansby (1994) described a procedure for including new items to the MEOCS, which resulted in two new factors: Sexism and Discrimination against Men.

With the millennium approaching, proposals for a MEOCS 2000 began to appear. McIntyre (1996, cited in Barnes, 1996, p.4) made the following proposal to update the MEOCS:

- "A review and summary of the psychometric properties of the MEOCS to assess the technical strengths and weakness of the current instrument
- A survey of current administrators of the MEOCS and field commanders who have used the MEOCS, to assess the perceived quality of the current instrument and administration process
- A review of published literature on EO climate assessment, focusing on recent technological advances in survey management and on emerging EO issues
- Use of the World Wide Web to collect information on survey technology and contemporary EO issues, and to identify EO experts for interviews."

Barnes (1996, p.18) made his own set of proposals:

- "Conduct a systematic survey of MEOCS users and administrators
- Develop a modular MEOCS
- Preserve continuity of the database through retention of a core of questions
- Create separate modules dealing with racial issues, gender issues, and extremist groups
- Continue support and use of a paper-and-pencil MEOCS
- Develop a prototype computer-administered MEOCS
- Explore use of the randomized response technique or neural networks to reduce social desirability response bias."

In developing a modular MEOCS, a goal has been set of establishing these modules with a maximum of five items to each module with an internal consistency of .75. Previous studies by McIntyre (1999) and Truhon (1999) have employed a variety of techniques to reduce the scales on the MEOCS for use in the updated MEOCS 2000. McIntyre (1999) made use of confirmatory factor analysis (CFA) to examine the Standard MEOCS. Truhon (1999) made use of cluster analysis and reliability to examine five versions of the MEOCS. However, researchers have usually suggested the use of item response theory (IRT) to help reduce scales (Sinar & Julian, 1999).

Item Response Theory[1]

The importance of IRT can best be seen in contrast to classical test theory. Classical test theory is based upon the assumption that a person's score on a test is the result of a true test score and error. See the formula below.

$$x_{ij} = t_{ij} + e_{ij}$$

In classical test theory there is an inseparable link between a person's score and the test given. The ability of a person is defined in terms of the difficulty of the items on the test, but the difficulty of the items is defined in terms of the person's ability as shown on the test. This creates several problems.

First, it is difficult to compare the performance of two individuals on different versions of a test. Even if there are parallel forms of the same test, there will be differences in the amount of error that contributes to each person's score. Second, the reliability of a test is typically defined by the correlation between parallel forms of the test, which is difficult to establish. Third, the standard error of measurement is assumed to be the same for each individual, a difficult assumption to meet.

IRT has a long history, probably beginning with the work of Lord (1952). It provides an alternative to classical test theory by determining the difficulty of items independently of individuals' performance, by

[1] For a review of the basics of item response theory and a comparison with classical test theory, see Hambleton, Swaminathan, and Rogers (1991), Thissen and Steinberg (1988), and van der Linden and Hambleton (1997).

IRT does this by examining performance at the item level. The earliest work on IRT was done with dichotomous items (i.e., there is a correct response and an incorrect response). From the pattern of responses an estimate of person's latent ability (T) can be calculated, usually scaled with a mean of 0 and a standard deviation of 1. Items can be examined to determine their discrimination (a) and their difficulty (b). In this way, the relationship between persons' latent ability and their performance on a set of items can be presented as an ogive curve called an item characteristic curve (ICC) or item characteristic function.

IRT makes two assumptions. First, the items that make up the test or scale must be *unidimensional*, i.e., they measure only one ability. The unidimensionality of a set of items is usually established by factor analysis or a similar technique. Second, there is *local independence* among the responses, i.e., once the latent ability is controlled for, there is no relationship between a person's responses to different items.

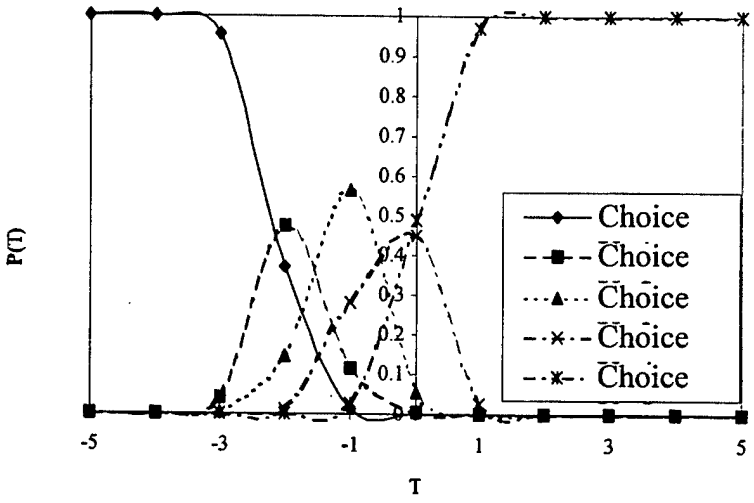
From the early work with dichotomous items, applications of IRT to tests with polytomous[2] responses, such as multiple-choice and Likert-type scales, ensued. The earliest of these was Samejima's (1969, 1997) graded response model. This model assumes that the categories of responses can be ordered, such as $i = 1, 2 \ldots n$ where n is the highest level of response. It uses the formula below to calculate what are called category response functions for each choice for a particular item (see Figure 1 for an example).

$$P(x = i) = ((1/(1+e^{-Da(T-b(i-1))}) - 1/(1+e^{-Da(T-b(i))})$$

where

$P(x = i)$	is the probability of a person giving response i;
e	is a transcendental number equal to 2.718;
D	is a constant equal to 1.7 used to produce ogive curves;
a	is the discrimination of the item as represented by the slope of the ICC;
T	is the latent ability or trait;
b_i	is the difficulty of the item as represented by point at which on the T-axis response i passes the 50% threshold.

Figure 1
Category Response Functions for MEOCS 39 for MEOCS Standard



From these category response functions for each item in a set of items the ICC can be calculated using the formula below.

$$P(T) = 1/(1+e^{-Da(T-b)})$$

Reise, Widaman, and Pugh (1993) made a comparison of CFA and IRT. Each measure has its advantages and disadvantages. IRT makes use of the discriminability and difficulty of items in measuring latent variable, while most measures of CFA only use discriminability. While goodness of fit measures are well developed for CFA, that is not the case for IRT. This makes for easier comparison of models in CFA than in IRT.

[2] Both polytomous and polychotomous are used to describe multiple-category responses, but polytomous is probably the better term (Weiss, 1995).

There have been a number of applications of IRT to EO. Donovan and Drasgow (1999) used IRT to demonstrate the Department of Defense's Sexual Experiences Questionnaire did not function the same for men and women. Stark, Chernyshenko, and Drasgow (1999) demonstrated that IRT could be used to shorten the same questionnaire from 23 items to 16 items.

Stark et al. (1999) used Samejima's Graded Response IRT model (Samejima, 1969) in a four-step process to fit the data: establishing unidimensionality, ensuring an adequate number of responses per item option, estimating parameters, and establishing model-data fit. This report attempts to follow that process.

Establishing unidimensionality involves items that can be grouped into independent dimensions. Earlier work has established this for the MEOCS by the use of factor analysis (Dansby & Landis, 1991) and by cluster analysis (Truhon, 1998, 1999). Ensuring an adequate number of responses per item option involves examining items for skew and combining response categories as necessary. The MULTILOG computer program (Thissen, 1991) is used to estimate item parameters.

As noted above, there have been attempts to measure the goodness of fit of IRT models. While procedures exist for the case where one parameter is estimated (i.e., *a* the discriminability parameter), there are problems in the two-parameter (i.e., *a* and *b*, the difficulty parameter) and the three-parameter (i.e., *a*, *b*, and *c*, a guessing parameter) cases (van der Linden & Hambleton, 1997). As part of the MULTILOG computer program (Thissen, 1991), the statistic G^2 is calculated. G^2 is equal to –2 times the log of the likelihood function which is distributed as a chi-square value. However, with a large set of items (more than five) or with polytomous items G^2 is not appropriate because of the infrequency of some response patterns (Reise et al., 1993). MULTILOG also calculates the *marginal reliability*, the average reliability of a set of items over levels of *T*

Drasgow and his associates (Drasgow, Levine, Tsien, Williams, & Mead, 1995; Stark et al., 1999) have devised a procedure for fitting two-parameter models using a cross-validation approach. One step involves a visual inspection of the ICCs created by both samples. The second step involves applying the expected frequencies of the calibration sample to the validation sample.

The problem with this approach is that the first step is highly subjective. The second step can result in large chi-squares if the researcher is using a large sample size even though the deviations from expected frequencies are small proportionately (Hambleton et al, 1991).

The purpose of the current study was to apply IRT to the five versions of the MEOCS: the Standard MEOCS, the MEOCS-Less Intensive, Truncated Version (LITE), the Senior Leader Equal Opportunity Climate Survey (SLEOCS), the MEOCS-Equal Employment Opportunity (EEO), and the Small Unit Equal Opportunity Climate Survey (SUEOCS). The results of these analyses would be used to reduce the scales to five items with a minimum reliability of .75.

Standard MEOCS

Method

Participants

At the time of these analyses there were data from 920,622 respondents in the Standard MEOCS database. Eliminating cases with missing values reduced the sample to 638,777. For purposes of analysis, this remaining sample was divided using SPSS's Sample command into two nearly equal groups (Group 1, n=63,594; Group 2, n=63,401)[3].

Characteristics of the subset were as follows: Approximately 49 percent were in the Army, 14 percent in the Navy, 14 percent in the Air Force, 13 percent in the Marine Corps, 6 percent in the Federal Civil Service, and 3

[3] It was hoped to find an acceptable measure of fit by using a cross-validation procedure. One idea was to take the expected frequencies derived from the calibration sample and using the Kolmogorov-Smirnov test (Siegel, 1956), apply them to validation sample. A significant D occurs if it exceeds $1.36/\sqrt{N}$ where N is the sample size. With the sample sizes reported here, a D of .01 would be significant. As a result, cross-validation was not performed in these analyses.

percent in the Coast Guard. Active-duty organizations comprised 70 percent of the subset, reserve organizations 10 percent, National Guard organizations 10 percent, and civilian organizations 10 percent.

In terms of demographic information, the vast majority of respondents (81 percent) were male. More than half of the respondents (62 percent) were White, 17 percent African American, 8 percent Hispanic, 4 percent Asian American, 3 percent Native American, and 6 percent other or unknown. Education level was high with 28 percent possessing a high school diploma or less, 43 percent some college, 18 percent a college degree, and 12 percent graduate work. The respondents were relatively young: 5 percent younger than 20, 31 percent age 20 to 25, 19 percent age 26 to 30, 28 percent age 31 to 40, 12 percent age 41 to 50, and 4 percent older than 51.

These characteristics are comparable to those found for the large samples of the MEOCS. Comparing the two groups, they are not significantly different on any characteristic.

Results

Previous work (Truhon, 1999) had analyzed the Standard MEOCS into 14 clusters or scales: Sexual Harassment and Discrimination, Differential Command Behavior toward Minorities, Positive EO Behavior, Racist/Sexist Behavior, Reverse Discrimination (Behavior), Positive Commitment, Perceived Work Group Effectiveness, Job Satisfaction, Lack of Commitment, Discrimination Against Minorities and Women, Reverse Discrimination (Attitude), Attitudes toward Racial/Gender Separatism, Positive Racial Climate, and General EO Climate. Each scale was analyzed separately by IRT.

Sexual Harassment and Discrimination

As can be seen in Table 1, the five best discriminating Sexual Harassment and Discrimination items are: MEOCS 39, MEOCS 43, MEOCS 46, MEOCS 47, and MEOCS 48. It should be noted that these are the same items that I found to be best previously (Truhon, 1999). This scale has a marginal reliability of .86 and (the reduced scale) an internal consistency of .85 (Δ .85 for all cases). The five best items are listed below.

Table 1
Estimated Parameters for Sexual Harassment and Discrimination Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 24	1.07	-2.01	-1.24	-0.34	0.57
MEOCS 32	1.53	-2.33	-1.55	-0.58	0.31
MEOCS 36	1.62	-1.75	-1.11	-0.35	0.41
MEOCS 39	2.08	-2.29	-1.67	-0.90	-0.10
MEOCS 41	1.93	-2.47	-1.85	-1.15	-0.37
MEOCS 43	2.14	-2.38	-1.77	-1.00	-0.21
MEOCS 46	2.04	-2.38	-1.75	-0.94	-0.07
MEOCS 47	2.24	-2.18	-1.60	-0.93	-0.24
MEOCS 48	2.52	-2.19	-1.65	-0.98	-0.29
MEOCS 49	1.72	-2.06	-1.44	-0.72	0.07

MEOCS 39 When a woman complained of sexual harassment to her superior, he told her, "You're being too sensitive."

MEOCS 43 A woman was asked to take notes and provide refreshments at staff meetings (such duties were not part of her job assignment).

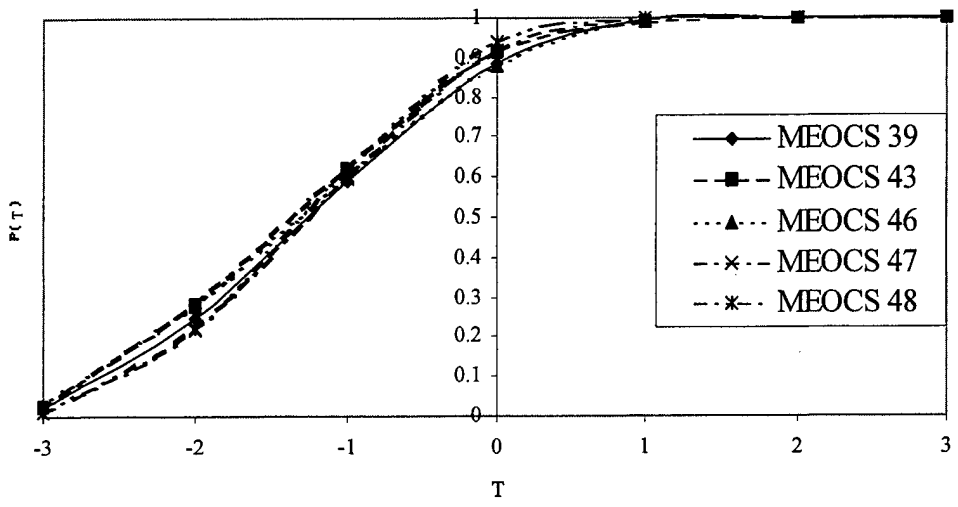
MEOCS 46 A supervisor referred to female subordinates by their first names in public, while using titles for the male subordinates.

MEOCS 47 The commander/CO assigned an attractive woman to escort visiting male officials around because, "We need someone nice looking to show them around."

MEOCS 48 A woman who complained of sexual harassment was not recommended for promotion.

The ICCs for these five items are shown in Figure 2. These items have high discriminability and the shape and placement of their characteristic curves are very similar.

Figure 2
ICCs for Sexual Harassment Items for MEOCS Standard



Differential Command Behavior toward Minorities and Women

As can be seen in Table 2, the five best discriminating Differential Command Behavior toward Minorities and Women items are: MEOCS 23, MEOCS 28, MEOCS 34, MEOCS 38, and MEOCS 44. That matches four out of the five proposed previously (Truhon, 1999). This scale has a marginal reliability of .83 and (the reduced scale) an internal consistency of .85 (Δ .85 for all cases). These five items are listed below.

Table 2
Estimated Parameters for Differential Command Behavior toward Minorities and Women Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 10	1.93	-2.42	-1.86	-1.11	-0.23
MEOCS 18	2.13	-2.24	-1.73	-1.00	-0.16
MEOCS 23	2.41	-2.39	-1.88	-1.14	-0.34
MEOCS 25	2.00	-2.72	-2.14	-1.35	-0.56
MEOCS 28	2.26	-2.59	-2.05	-1.27	-0.42
MEOCS 30	1.82	-2.61	-2.03	-1.33	-0.55
MEOCS 34	2.25	-2.36	-1.79	-0.94	-0.11
MEOCS 38	2.26	-2.30	-1.74	-0.92	-0.12
MEOCS 44	2.42	-2.05	-1.58	-0.95	-0.20

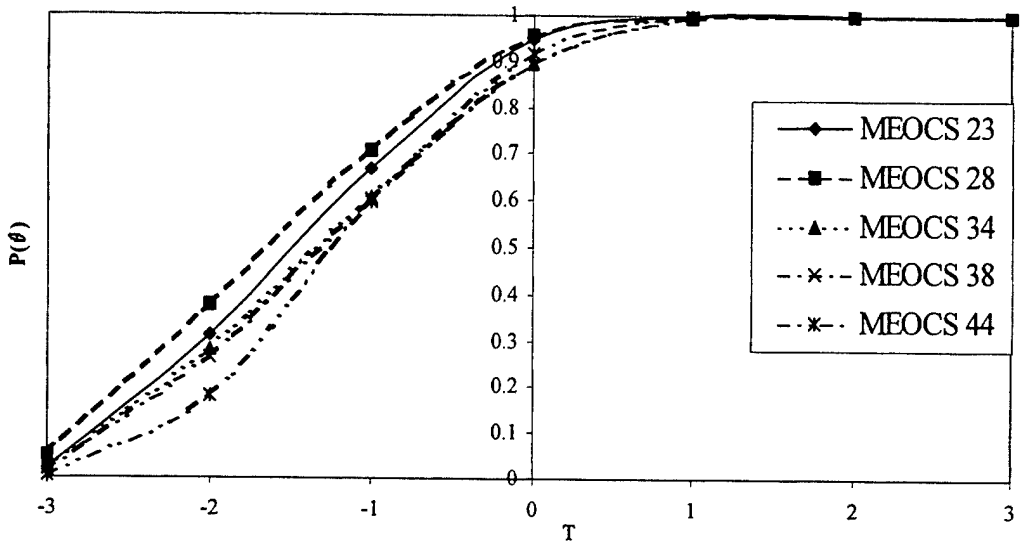
MEOCS 23 A minority member was assigned less desirable office space than a majority member.
MEOCS 28 The Commander/CO changed duty assignments when it was discovered that two persons of the same minority were assigned to the same sensitive area on the same shift.
MEOCS 34 A motivational speech to a minority subordinate focused on the lack of opportunity elsewhere; to a majority subordinate, it focused on promotion.

MEOCS 38 A qualified minority first-level supervisor was denied an opportunity for professional education by his/her supervisor. A majority first-level supervisor with the same qualifications was given the opportunity.

MEOCS 44 A supervisor gave a minority subordinate a severe punishment for a minor infraction. A majority member who committed the same offense was given a less severe penalty.

The ICCs for these items are shown in Figure 3. All the ICCs are rapidly accelerating ogives.

Figure 3
ICCs for Differential Command Behavior toward Minorities and Women Items for MEOCS Standard



Positive EO Behavior

As can be seen in Table 3, the five best discriminating Positive EO Behavior items are: MEOCS 5, MEOCS 7, MEOCS 29, MEOCS 35, and MEOCS 50. These match the five items selected in my previous work (Truhon, 1999). This scale has a marginal reliability of .87 and (the reduced scale) an internal consistency of .83 (Δ .83 for all cases). These items are listed below:

Table 3
Estimated Parameters for Positive EO Behavior Items from the Standard MEOCS using Samejima's Graded Response Model

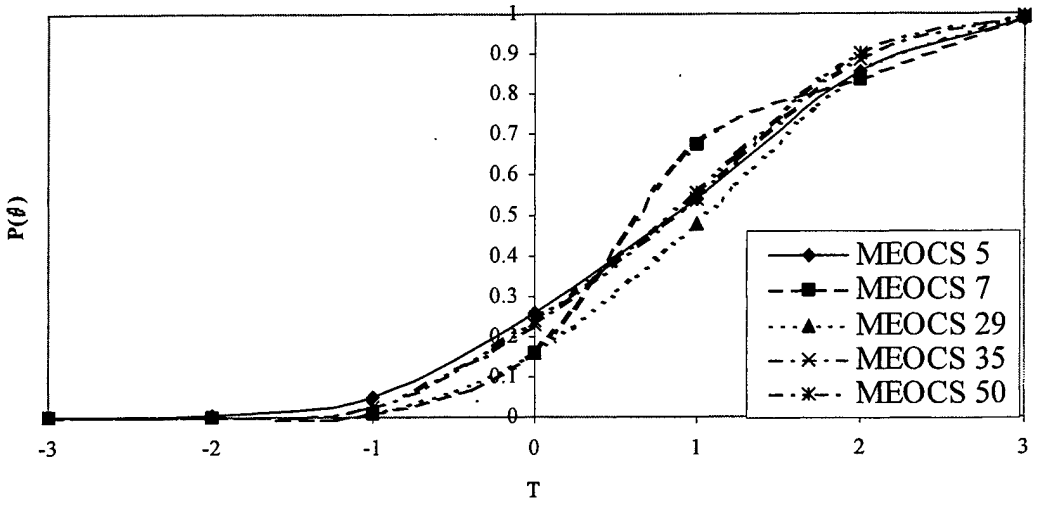
Item Number	a	b_1	b_2	b_3	b_4
MEOCS 1	1.27	0.64	1.45	2.32	2.89
MEOCS 2	1.22	-0.82	0.33	1.50	2.38
MEOCS 5	1.64	-0.46	0.45	1.33	1.91
MEOCS 7	2.00	-0.07	0.71	1.46	2.00
MEOCS 14	1.32	-1.20	0.08	1.30	2.10
MEOCS 19	1.38	-0.07	0.83	1.59	2.08
MEOCS 29	2.22	-0.07	0.70	1.45	1.99
MEOCS 31	0.96	-0.63	0.49	1.50	2.06
MEOCS 35	2.02	-0.32	0.49	1.28	1.86
MEOCS 37	1.40	-0.31	0.62	1.39	1.98
MEOCS 50	2.03	-0.34	0.45	1.24	1.79

MEOCS 5 Majority and minority supervisors were seen having lunch together.
MEOCS 7 Majority and minority personnel were seen having lunch together.
MEOCS 29 Majority and minority personnel were seen socializing together.
MEOCS 35 Majority personnel joined minority friends at the same table in the cafeteria or designated eating area.

MEOCS 50 At non-official social activities, minority and majority members were seen socializing in the same group.

The ICCs for these items are shown in Figure 4. All the ICCs are rapidly accelerating ogives.

Figure 4
ICCs for Positive EO Items for MEOCS Standard



Racist/Sexist Behavior

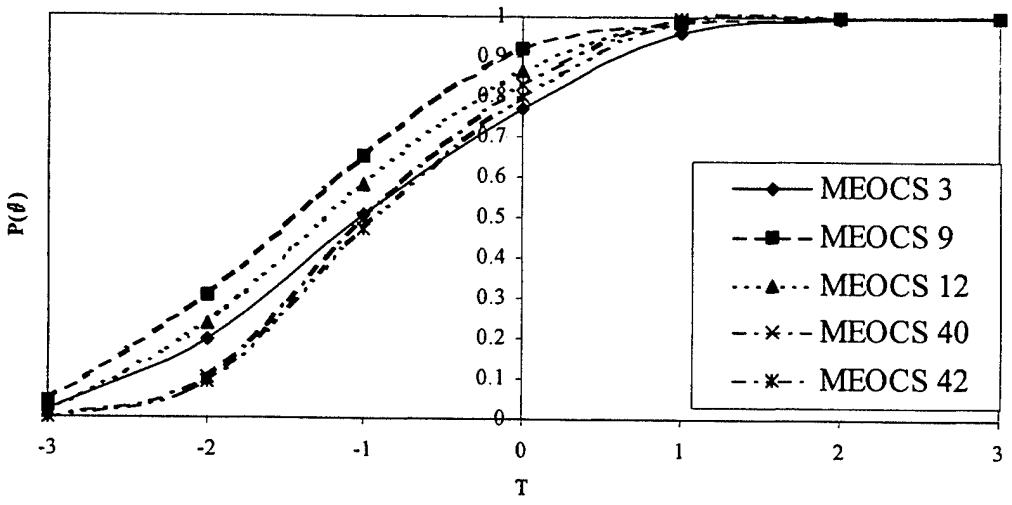
As can be seen in Table 4, the five best discriminating Racist/Sexist Behavior items are: MEOCS 3, MEOCS 9, MEOCS 12, MEOCS 40, and MEOCS 42. This scale has a marginal reliability of .84 and (the reduced scale) an internal consistency of .84 (Δ .84 for all cases). These are the same five items selected in my previous study (Truhon, 1999). These items are listed below:

Table 4
Estimated Parameters for Racist/Sexist Behavior Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 3	1.68	-2.11	-1.46	-0.61	0.41
MEOCS 6	1.65	-2.56	-1.93	-1.13	-0.17
MEOCS 9	1.90	-2.40	-1.84	-1.10	-0.27
MEOCS 12	2.15	-2.24	-1.65	-0.88	-0.01
MEOCS 13	1.34	-2.39	-1.80	-1.14	-0.44
MEOCS 15	1.53	-2.41	-1.66	-0.73	0.21
MEOCS 40	2.49	-1.85	-1.34	-0.67	0.12
MEOCS 42	2.39	-1.81	-1.27	-0.58	0.22

MEOCS 3 A majority person told several jokes about minorities.
MEOCS 9 A majority person in your organization directed a racial slur at a member of another organization.
MEOCS 12 A group of majority and minority personnel made reference to an ethnic group other than their own using insulting ethnic names.
MEOCS 40 Offensive racial/ethnic names were frequently heard.
MEOCS 42 Racial/ethnic jokes were frequently heard.

Figure 5
ICCs for Racist/Sexist Behaviors Items for MEOCS Standard



The ICCs for these items are presented in Figure 5. All the ICCs are rapidly accelerating ogives.

Reverse Discrimination (Behavior)

As can be seen in Table 5, the five best discriminating Reverse Discrimination (Behavior) items are: MEOCS 4, MEOCS 17, MEOCS 22, MEOCS 33, and MEOCS 45. This scale has a marginal reliability of .81 and (the reduced scale) an internal consistency of .78 (Δ .78 for all cases). These are the same five items selected in my previous study (Truhon, 1999). These items are listed below:

Table 5
Estimated Parameters for Reverse Discrimination (Behavior) Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 4	1.34	-2.76	-2.04	-1.05	-0.07
MEOCS 17	2.01	-2.12	-1.52	-0.74	0.04
MEOCS 21	1.33	-1.93	-1.29	-0.48	0.36
MEOCS 22	2.10	-1.94	-1.38	-0.63	0.10
MEOCS 26	0.98	-2.47	-1.50	-0.40	0.58
MEOCS 27	0.91	-2.03	-1.08	0.05	1.14
MEOCS 33	1.76	-2.59	-1.98	-1.08	-0.26
MEOCS 45	1.96	-2.07	-1.44	-0.66	0.09

MEOCS 4 The commander/CO did not appoint a qualified majority in a key position, but instead appointed a less qualified minority.

MEOCS 17 A minority man was selected for a prestigious assignment over a majority man who was equally, if not slightly better, qualified.

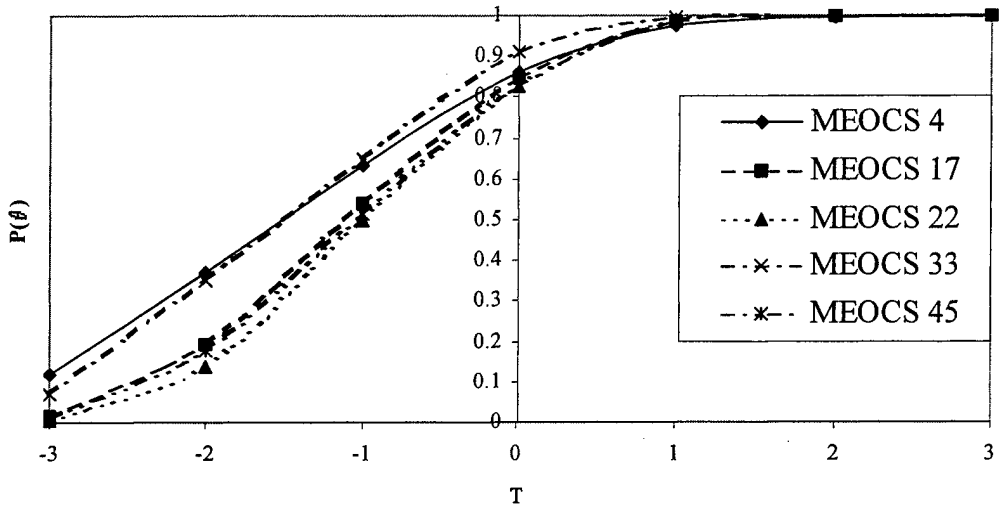
MEOCS 22 A minority woman was selected to receive an award for an outstanding act even though she was not perceived by her peers as being qualified as her nearest competitor, a majority man.

MEOCS 33 A majority and a minority person turned in similar pieces of equipment with similar problems. The minority person was given a new issue; the majority member's equipment was sent to maintenance for repair.

MEOCS 45 A better qualified man was not picked for a good additional duty assignment because the Commander/CO said it would look good for equal opportunity to have a woman take his duty.

The ICCs for these items are presented in Figure 6. All the ICCs are rapidly accelerating ogives.

Figure 6
ICCs for Reverse Discrimination (Behaviors) Items for MEOCS Standard



Positive Commitment

As can be seen in Table 6, the five best discriminating Positive Commitment items are: COM 52, COM 53, COM 56, COM 58, and COM 61. This scale has a marginal reliability of .89 and (the reduced scale) an internal consistency of .88 (Δ .88 for all cases). These are the same five items selected in my previous study (Truhon, 1999). These items are listed below

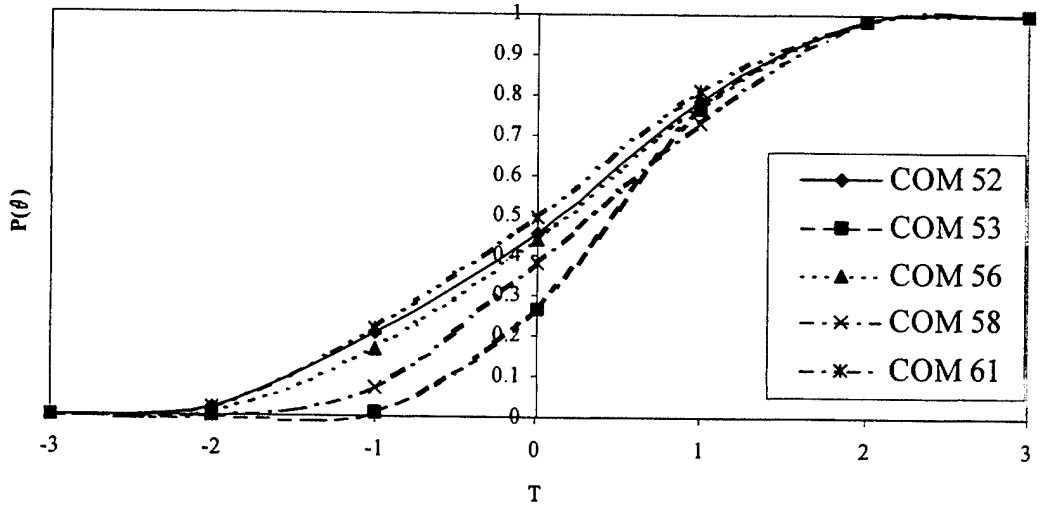
Table 6
Estimated Parameters for Positive Commitment Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
COM 51	1.45	-1.75	-0.79	0.03	0.59
COM 52	2.23	-1.33	-0.21	0.53	1.22
COM 53	3.00	-0.40	0.32	0.95	1.42
COM 56	2.26	-1.12	-0.18	0.57	1.25
COM 58	2.48	-0.76	-0.01	0.77	1.31
COM 61	2.02	-1.29	-0.43	0.48	1.13

COM 52 I find my values and the organization's values are very similar.
COM 53 I am proud to tell others that I am part of this organization.
COM 56 This organization really inspires me to perform my job in the very best manner possible.
COM 58 I am extremely glad to be part of this organization compared to other, similar organizations I could be in.
COM 61 For me, this organization is the best of all possible ways to serve my country.

The ICCs for these items are presented in Figure 7. All the ICCs are rapidly accelerating ogives.

Figure 7
ICCs for Positive Commitment Items for MEOCS Standard



Perceived Work Group Effectiveness

There are only five items in the Perceived Work Group Effectiveness scale. As can be seen in Table 7, they all have high discriminability. This scale has a marginal reliability of .83 and (the reduced scale) an internal consistency of .79 (Δ .79 for all cases). The five items are listed below:

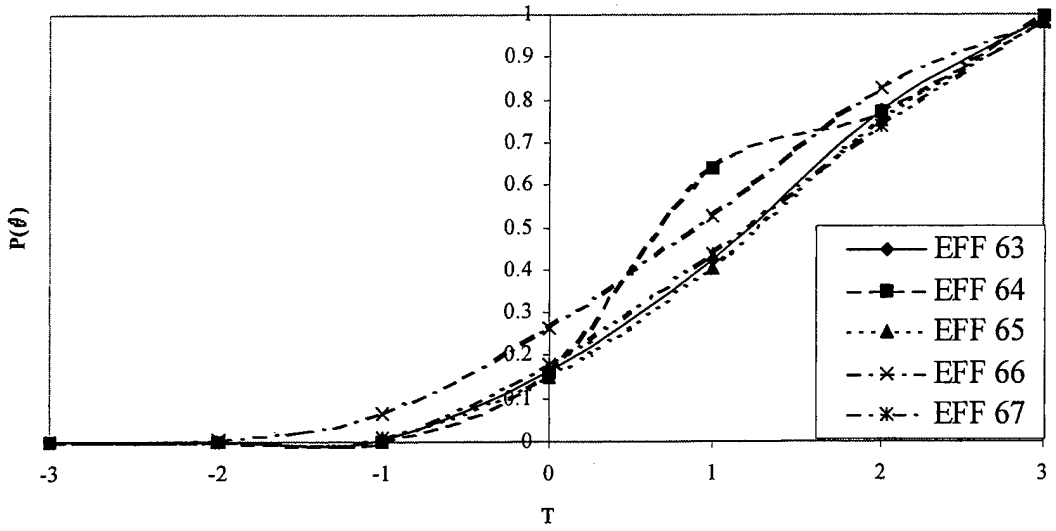
Table 7
Estimated Parameters for Perceived Work Group Effectiveness Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EFF 63	2.49	-0.12	0.89	1.60	2.25
EFF 64	3.08	-0.10	0.96	1.64	2.24
EFF 65	2.24	-0.07	0.93	1.69	2.29
EFF 66	1.90	-0.66	0.54	1.33	2.10
EFF 67	2.47	-0.17	0.80	1.72	2.34

EFF 63 The amount of output from my work group is very high.
EFF 64 The quality of output from my work group is very high.
EFF 65 When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.
EFF 66 My work group always gets maximum output from available resources (e.g., personnel and materials).
EFF 67 My work group's performance in comparison to similar work groups is very high.

The ICCs for these items are presented in Figure 8. All the ICCs are slowly accelerating ogives.

Figure 8
ICCs for Perceived Work Group Effectiveness Items for MEOCS Standard



Job Satisfaction

As can be seen in Table 8, the five items with highest discriminations in the Job Satisfaction scale are: SAT 68, SAT 70, SAT 71, SAT 72, and SAT 73. This scale has a marginal reliability of .84 and (the reduced scale) an internal consistency of .79, (Δ .79 for all cases). This matches the findings from my earlier research (Truhon, 1999). The five items are listed below:

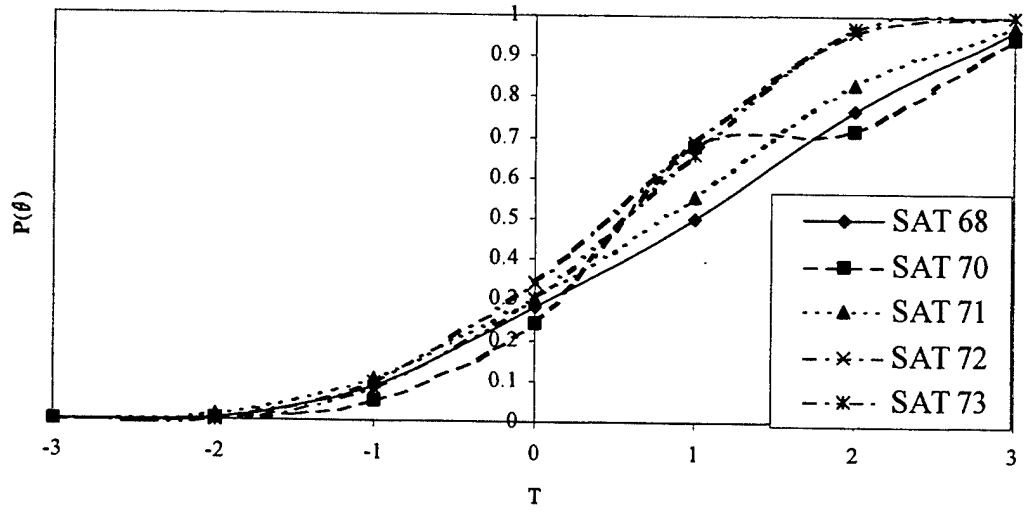
Table 8
Estimated Parameters for Job Satisfaction Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
SAT 68	1.67	-0.72	0.44	1.58	2.29
SAT 69	1.21	-0.93	0.53	1.68	2.73
SAT 70	1.56	-0.44	0.51	1.74	2.45
SAT 71	1.43	-0.80	0.37	1.29	2.02
SAT 72	2.05	-0.84	0.16	0.84	1.46
SAT 73	2.60	-0.82	0.28	0.92	1.53

Level of satisfaction with
SAT 68 the chance to help people and improve their welfare through performance of my job.
SAT 70 the recognition and pride my family has in the work I do.
SAT 71 my job security.
SAT 72 the chance to acquire valuable skills in my job that prepare me for future opportunities.
SAT 73 my job as a whole.

The ICCs for these items are presented in Figure 9. All the ICCs are slowly accelerating ogives.

Figure 9
ICCs for Job Satisfaction Items for MEOCS Standard



Lack of Commitment

As can been seen in Table 9, the five items with the highest discrimination in the Lack of Commitment scale are: COM 55, COM 57, COM 59, COM 60, and COM 62. This scale has a marginal reliability of .80 and (the reduced scale) a borderline acceptable internal consistency (Δ .75 for the sample, Δ .75 for all cases). These items match the items selected in my previous study (Truhon, 1999). The five items are listed below:

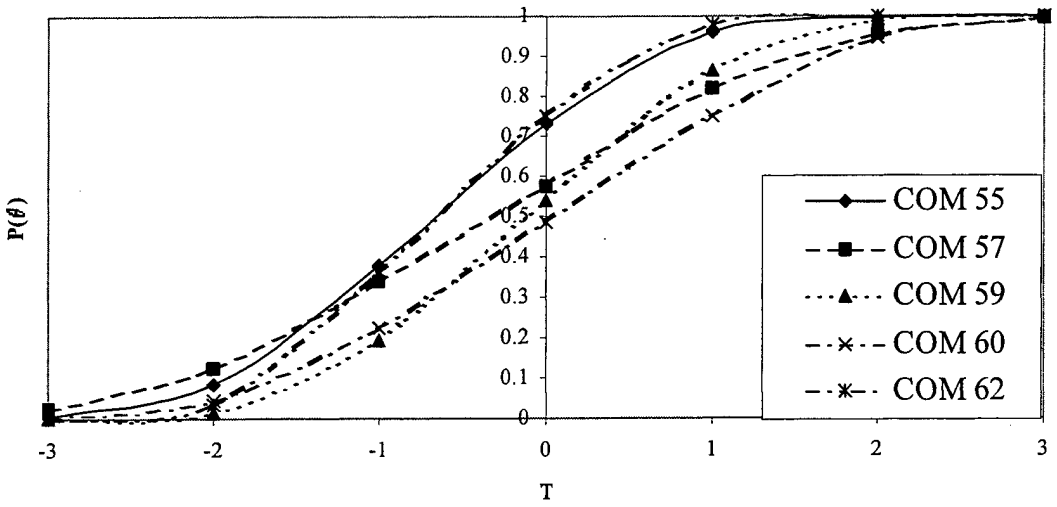
Table 9
Estimated Parameters for Lack of Commitment Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
COM 54	0.47	-2.85	-0.38	2.07	4.02
COM 55	1.70	-1.68	-1.00	-0.34	0.37
COM 57	1.19	-1.78	-0.90	0.23	1.15
COM 59	1.86	-1.12	-0.50	0.27	0.93
COM 60	1.49	-1.34	-0.41	0.51	1.44
COM 62	2.15	-1.45	-1.01	-0.31	0.28

COM 55 I feel little loyalty to this organization.
COM 57 It would take very little in my present circumstances to cause me to leave this organization.
COM 59 Assuming I could stay, there's not too much to be gained by sticking with this organization to retirement.
COM 60 Often, I find it difficult to agree with the policies of this organization on important matters relating to its people.
. COM 62 Becoming part of this organization was definitely not a good move for me.

The ICCs for these items are presented in Figure 10. All the ICCs are rapidly accelerating ogives.

Figure 10
ICCs for Negative Commitment Items for MEOCS Standard



Discrimination against Minorities and Women

As can be seen in Table 10, the five items with the highest discrimination for the Discrimination against Minorities and Women scale are: RAPS 76, RAPS 77, RAPS 85, RAPS 86, and RAPS 90. This scale has a marginal reliability of .89 and (the reduced scale) an internal consistency of .87 (Δ .87 for all cases). That matches four out of the five items from my previous study (Truhon, 1999). The five items are listed below:

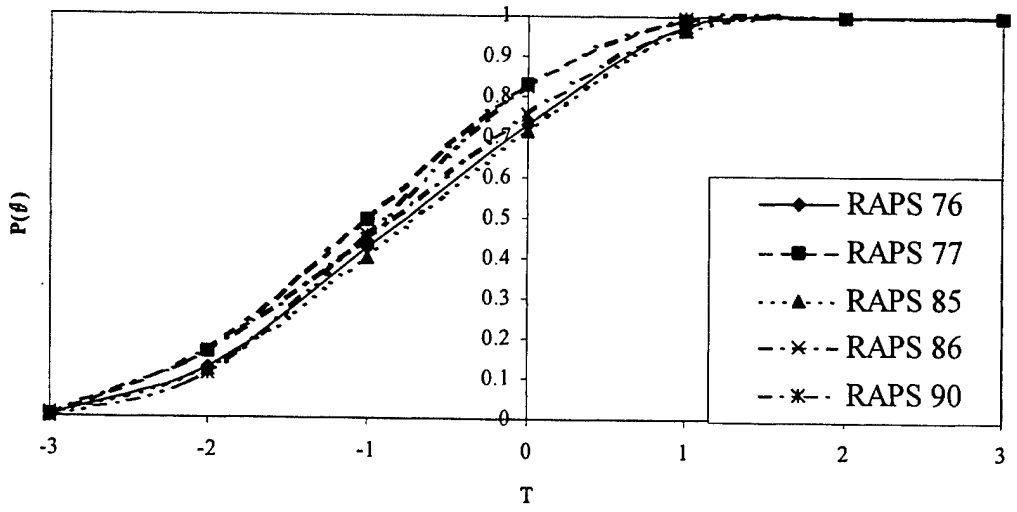
RAPS 76 Majority supervisors in charge of minority supervisors doubt the minorities' abilities.
RAPS 77 Minorities get more extra work details than majority members.
RAPS 85 Majority members assume that minorities commit every crime that occurs, such as thefts in living quarters.
RAPS 86 Majority males do not show proper respect for minorities or women of higher rank.
RAPS 90 Majority members get away with breaking rules that result in punishment for minorities.

Table 10
Estimated Parameters for Discrimination Against Minorities and Women Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
RAPS 75	2.03	-2.01	-1.29	-0.39	0.26
RAPS 76	2.31	-1.97	-1.17	-0.31	0.42
RAPS 77	2.32	-2.06	-1.42	-0.56	0.07
RAPS 81	1.66	-2.13	-1.16	-0.25	0.56
RAPS 84	1.82	-2.01	-1.14	-0.29	0.49
RAPS 85	2.12	-1.94	-1.08	-0.26	0.47
RAPS 86	2.04	-2.10	-1.21	-0.41	0.36
RAPS 89	1.86	-2.04	-1.05	-0.23	0.61
RAPS 90	2.67	-1.92	-1.22	-0.50	0.09
RAPS 98	1.10	-2.58	-1.71	-0.59	0.01

The ICCs for these items are presented in Figure 11. All the ICCs are rapidly accelerating ogives.

Figure 11
ICCs for Discrimination against Minorities and Women Items for MEOCS Standard



Reverse Discrimination (Attitude)

As can be seen in Table 11, the five items with highest discrimination for the Reverse Discrimination (Attitude) scale are: RAPS 91, RAPS 93, RAPS 96, RAPS 99, and RAPS 100. This scale has a marginal reliability of .81 and (the reduced scale) an internal consistency of .76 (Δ . 77 for all cases). Those are the same five items selected in my previous study (Truhon, 1999). The five items are listed below:

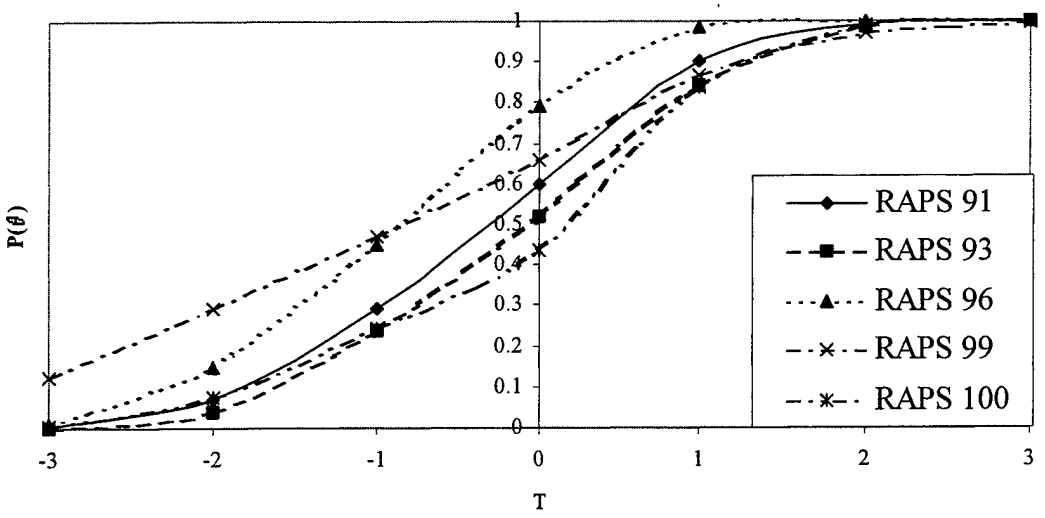
Table 11
Estimated Parameters for Reverse Discrimination (Attitude) Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
RAPS 91	1.65	-1.60	-0.64	0.08	0.73
RAPS 93	1.82	-1.44	-0.43	0.33	1.09
RAPS 94	0.90	-3.49	-2.59	-0.88	-0.16
RAPS 96	2.07	-2.02	-1.24	-0.43	0.17
RAPS 99	1.12	-2.86	-1.57	0.00	0.80
RAPS 100	2.08	-1.75	-0.98	-0.08	0.49

RAPS 91 Some minorities get promoted just because they are minorities.
RAPS 93 Minorities and women frequently cry "prejudice" rather than accept responsibility for personal faults.
RAPS 96 Minorities and women get away with breaking rules that majority males are punished for.
RAPS 99 Minorities don't take advantage of the educational opportunities that are available to them.
RAPS 100 Many minorities act as if they are superior to majority members.

The ICCs for these items are presented in Figure 12. Most of the ICCs are gradually accelerating ogives, while the ICC for RAPS 99 appears more like a steadily increasing line.

Figure 12
ICCs for Reverse Discrimination (Attitude) Items for MEOCS Standard



Attitudes toward Racial/Gender Separatism

As can be seen in Table 12, the five items with the highest discrimination for the Attitudes toward Racial/Gender Separatism scale are: RAPS 80, RAPS 82, RAPS 87, RAPS 88, and RAPS 92. This scale has a marginal reliability of .75 and (the reduced scale) an internal consistency of .82 (Δ .82 for all cases). Those are the same five items selected in my previous study (Truhon, 1999). These five items are listed below:

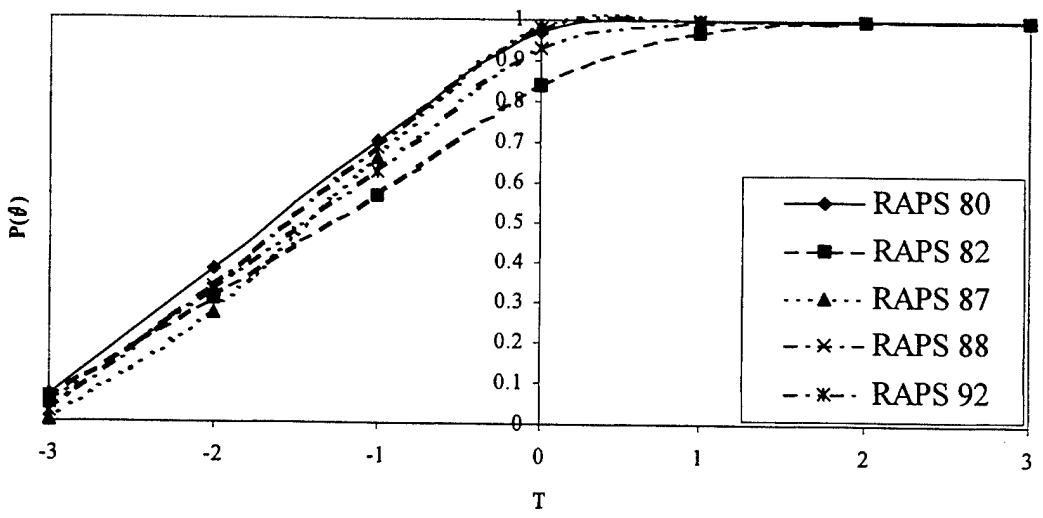
Table 12
Estimated Parameters for Attitudes toward Racial/Gender Separatism Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
RAPS 74	0.93	-3.77	-2.76	-0.8	0.41
RAPS 80	2.03	-2.63	-2.08	-1.15	-0.61
RAPS 82	1.66	-2.51	-1.83	-0.70	0.01
RAPS 87	3.20	-2.25	-1.83	-1.05	-0.54
RAPS 88	2.51	-2.44	-1.95	-1.09	-0.63
RAPS 92	1.98	-2.50	-1.90	-0.94	-0.36

RAPS 80 After duty hours, people should stick together in groups made up of their race only (e.g., minorities only with minorities and majority members with majority members).
RAPS 82 Trying to bring about the integration of women and minorities is more trouble than it's worth.
RAPS 87 Minorities and majority members would be better off if they lived and worked only with people of their own races.
RAPS 88 I dislike the idea of having a supervisor of a race different from mine.
RAPS 92 Power in the hands of minorities is a dangerous thing.

The ICCs for these items are presented in Figure 13. All the ICCs are rapidly accelerating ogives.

Figure 13
ICCs for Attitudes toward Racial/Gender Separatism Items for MEOCS Standard



Positive Racial Climate

There are five items in the Positive Racial Climate Scale. While two of the items have good discriminability (RAPS 79 and RAPS 83), three (RAPS 78, RAPS 95, and RAPS 97) do not (see Table 13). The scale's marginal reliability is .62 and its internal consistency is unacceptable (Δ .56; Δ 56 for all cases). The five items are listed below:

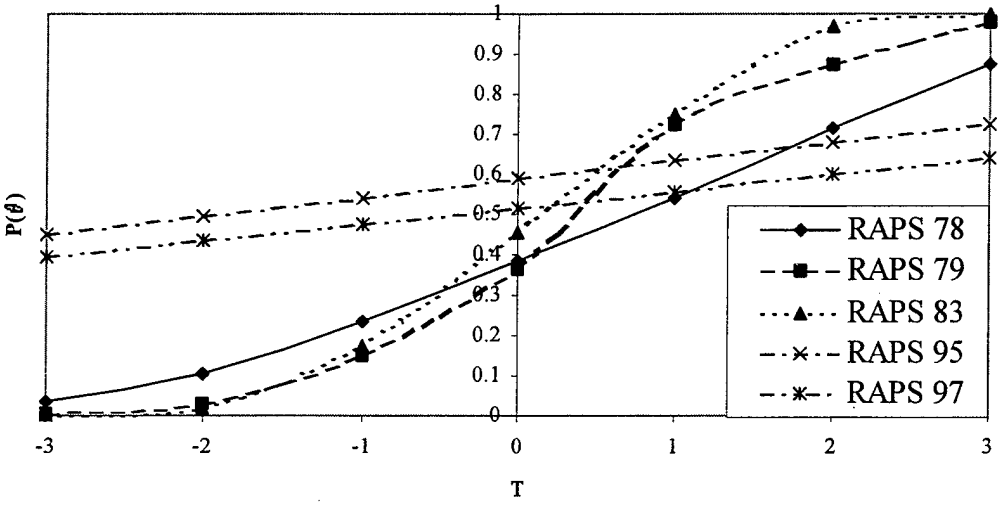
Table 13
Estimated Parameters for Positive Racial Climate Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
RAPS 78	0.83	-1.58	-0.08	1.70	2.55
RAPS 79	1.31	-1.02	0.12	0.95	1.81
RAPS 83	1.79	-1.13	-0.29	0.67	1.29
RAPS 95	0.18	-10.29	-3.86	0.81	4.77
RAPS 97	0.17	-10.18	-2.72	2.51	7.64

RAPS 78 I understand the feelings of people of other races better since I became associated with the military.
RAPS 79 The military is fully committed to the principle of fair treatment for all its members.
RAPS 83 If the race problem can be solved anywhere, it can be solved in the military.
RAPS 95 This organization provides a good career chance for advancement for minorities and women.
RAPS 97 There should be more close friendships between minorities and majority members in this organization.

The ICCs for these items are presented in Figure 14. The problems with this scale are also visible in Figure 14. Items RAPS 95, RAPS 97, and, to some extent, RAPS 78 do not discriminate very well between those at the lower and higher ends of this scale.

Figure 14
ICCs for Positive Racial Climate Items for MEOCS Standard



General EO Climate

There are only two items in the General EO Climate scale, but they both have strong discriminability (see Table 14). The scale has a marginal reliability of .87 and an internal consistency of .90 (Δ .90 for all cases). The two items are listed below.

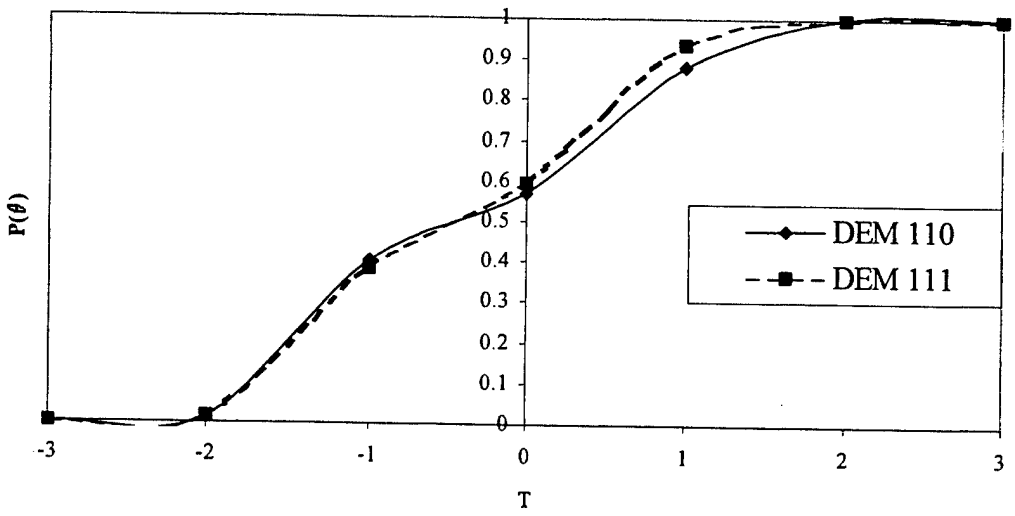
Table 14
Estimated Parameters for General EO Climate Items from the Standard MEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
DEM 110	4.66	-1.65	-1.06	0.12	0.99
DEM 111	4.76	-1.66	-1.01	0.06	0.87

DEM 110 Most people would rate the equal opportunity climate in this organization.....
DEM 111 I personally rate the equal opportunity climate in this organization.....

The ICCs for these items are presented in Figure 15. Both ICCs are rapidly accelerating ogives.

Figure 15
ICCs for General Equal Opportunity Climate Items for MEOCS Standard



MEOCS-LITE

Method

At the time of these analyses there were data from 38,959 respondents in the MEOCS-LITE database. Eliminating cases where there were missing values reduced the sample to 31,220.

Characteristics of the subset were as follows: Approximately 76 percent were in the Army, 11 percent in the Air Force, 6 percent in the Navy, 5 percent in the Marine Corps, 2 percent in the Coast Guard, and less than 1 percent in the Federal Civil Service. Active-duty organizations comprised 80 percent of the subset, National Guard organizations 12 percent, reserve organizations 4 percent, and civilian organizations 4 percent.

In terms of demographic information, the vast majority of respondents (86 percent) were male. More than half of the respondents (71 percent) were White, 15 percent African American, 9 percent Hispanic, 3 percent Asian American, 2 percent Native American, and less than 1 percent other or unknown. Education level was high with 1 percent possessing a high school diploma or less, 70 percent some college, 19 percent a college degree, and 10 percent graduate work. The respondents were relatively young: 6 percent younger than 20, 29 percent age 20 to 25, 21 percent age 26 to 30, 31 percent age 31 to 40, 12 percent age 41 to 50, and less than 1 percent older than 51.

Previous work (Truhon, 1999) had analyzed the MEOCS-LITE into 14 clusters or scales: EO's Link to Leadership and Readiness, Success of EO Programs, Importance of EO, EO Issues concerning Relationships between Groups, Concerns about Discrimination, Sexual Harassment and Discrimination, Differential Command Behavior toward Minorities, Positive EO Behavior, Racist/Sexist Behavior, Reverse Discrimination (Behavior), General EO Climate, Positive Commitment, Perceived Work Group Effectiveness, and Job Satisfaction. Each scale was analyzed separately by IRT.

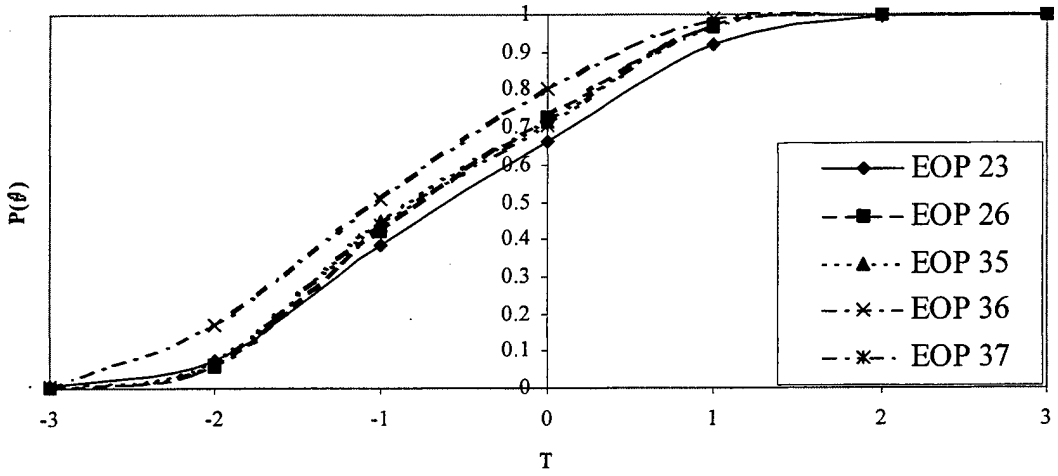
EO's Link to Leadership and Readiness

As can be seen in Table 15, the five items with the highest discriminability for EO's Link to Leadership and Readiness are: EOP 23, EOP 26, EOP 35, EOP 36, and EOP 37. This scale has a marginal reliability of .89 and (the reduced scale) an internal consistency of .86 (Δ .85 for all cases). These are the same five items that were selected in my previous study (Truhon, 1999). These items are listed below:

Table 15
Estimated Parameters for EO Link to Leadership and Readiness Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOP 23	1.88	-1.64	-1.11	-0.12	0.72
EOP 26	2.30	-1.64	-1.21	-0.29	0.41
EOP 27	1.75	-1.54	-0.89	0.30	1.27
EOP 31	1.47	-2.20	-1.49	-0.09	0.95
EOP 33	1.37	-2.33	-1.67	-0.37	0.77
EOP 35	2.76	-1.76	-1.29	-0.31	0.59
EOP 36	2.41	-2.02	-1.59	-0.51	0.18
EOP 37	2.72	-1.72	-1.26	-0.23	0.53

Figure 16
Item Characteristic Curves for Equal Opportunity's Link to Leadership and Readiness for MEOCS-LITE



EOP 23 EO plays a critical part in readiness.
EOP 26 I fully support the EO program.
EOP 35 EO education or training is an important element in an EO program.
EOP 36 It is extremely important for the organizational commander or head to model appropriate EO behaviors.
EOP 37 Everyone should be involved in promoting EO within my unit.

The ICCs for these items are presented in Figure 16. All the ICCs are rapidly accelerating ogives.

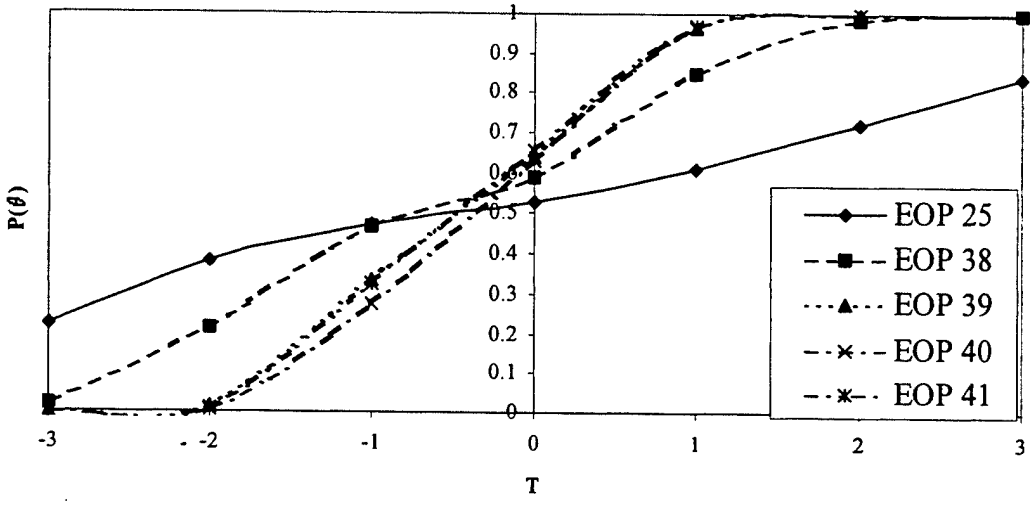
Success of EO Programs

There are only five items in the Success of EO Programs scale. The difficulty and discrimination indices are presented in Table 16. This scale has a marginal reliability of .88 and an internal consistency of .84 (Δ .84 for all cases), but improves to .87 (Δ .87 for all cases) if item EOP 25 is removed. The items are listed below:

Table 16
Estimated Parameters for Success of EO Programs Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOP 25	0.90	-3.35	-2.33	1.24	2.35
EOP 38	1.87	-2.17	-1.59	0.21	1.08
EOP 39	2.98	-1.45	-0.94	-0.03	0.65
EOP 40	3.25	-1.29	-0.82	0.00	0.67
EOP 41	3.20	-1.42	-0.92	-0.07	0.64

Figure 17
Item Characteristic Curves for Success of Equal Opportunity Programs Items for MEOCS-LITE



EOP 25 The EO climate in my unit is much better than it is in other similar units.
EOP 38 EO issues are generally handled fairly in my unit.
EOP 39 The discipline system in my unit is fair to all groups.
EOP 40 Rewards (e.g., promotions, awards, recognition) in my unit are distributed fairly to all groups.
EOP 41 Job assignments in my unit are fair to all groups.

The ICCs for these items are presented in Figure 17. As can be seen the curves are ogive-shaped for four of the items. Item EOP 25 does not discriminate very well.

Importance of EO

There are six items in the Importance of EO scale. As can be seen in Table 17, many of the items have low discrimination. Contrary to my previous findings (Truhon, 1999), EOP 32 appears to be one of the best discriminating items. This scale has a marginal reliability of .50 and (the reduced scale) a poor internal consistency (Δ .42; Δ .41 for all cases). The five best items are listed below:

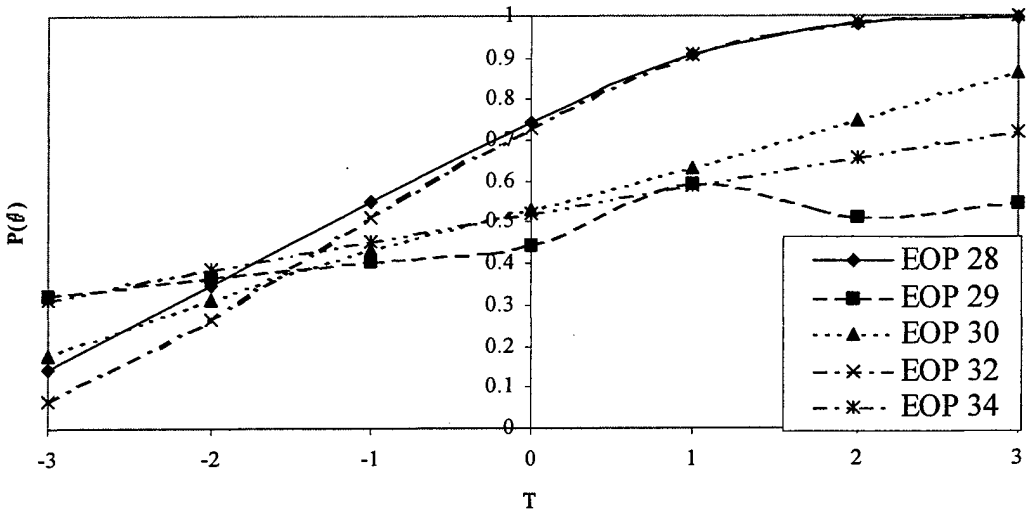
EOP 28 I have received sufficient EO training in my career.
EOP 29 Most leaders in my unit place too much emphasis on EO issues.
EOP 30 EO training in my unit is generally helpful in improving intergroup relations.
EOP 32 EO issues should be handled through the chain-of-command.
EOP 34 Affirmative action is an important element of an EO program.

Table 17
Estimated Parameters for Importance of EO Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOP 24	0.16	-2.96	1.41	9.16	13.52
EOP 28	1.07	-2.89	-1.93	-0.61	0.58
EOP 29	0.24	-6.75	-2.38	5.74	10.07
EOP 30	0.76	-3.13	-1.79	1.06	2.91
EOP 32	1.25	-2.40	-1.65	-0.51	0.65
EOP 34	0.30	-4.61	-2.68	1.63	4.82

The ICCs for these items are presented in Figure 18. As can be seen only two of the curves are ogive-shaped (items EOP 28 and EOP 32). It would appear that this scale should not be used. At best, items EOP 28 and EOP 32 should be the basis for developing a new scale.

Figure 18
ICCs for Importance of Equal Opportunity Items for MEOCS-LITE



EO Issues concerning Relationships with Groups

As can be seen in Table 18, all items in the EO in Relationships with Groups scale, except ISS 42, have good discriminability. The five items with the highest discriminability are: ISS 44, ISS 45, ISS 46, ISS 47, and ISS 48. Those are the same items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .79 and (the reduced scale) an internal consistency of .93 (Δ .93 for all cases). These items are listed below:

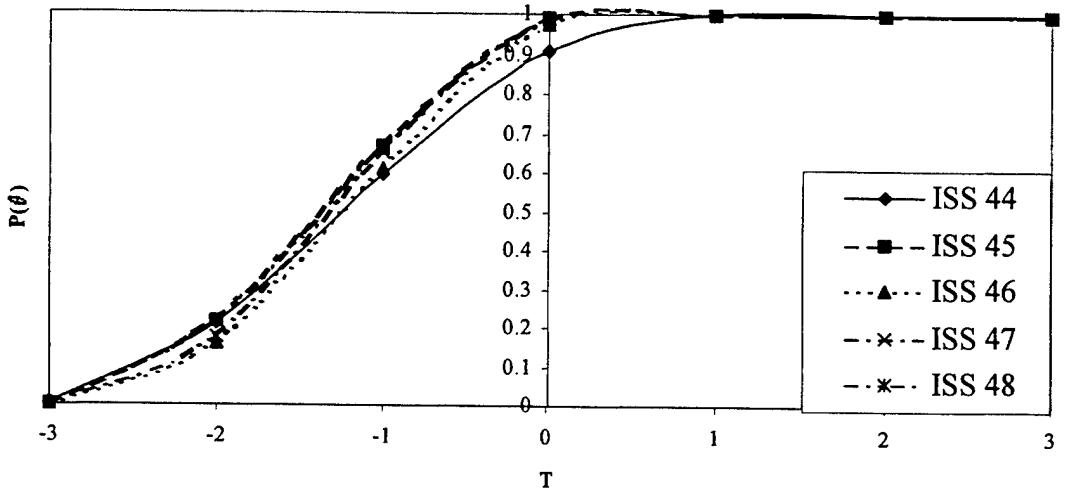
The degree to which there is a problem in the relationship between:
ISS 44 women and men.
ISS 45 minority women and minority men.
ISS 46 minority women and majority men.
ISS 47 majority women and minority men.
ISS 48 majority women and majority men.

Table 18
Estimated Parameters for EO Issues concerning Relationships with Groups Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
ISS 42	1.88	-2.53	-1.96	-1.08	-0.21
ISS 43	2.02	-2.62	-2.11	-1.27	-0.46
ISS 44	2.80	-2.14	-1.68	-0.92	-0.12
ISS 45	4.04	-2.14	-1.74	-1.09	-0.43
ISS 46	4.22	-2.03	-1.66	-0.97	-0.32
ISS 47	4.31	-2.05	-1.71	-1.05	-0.40
ISS 48	4.08	-2.13	-1.75	-1.08	-0.41

The ICCs for these items are presented in Figure 19. All the ICCs are rapidly accelerating ogives.

Figure 19
ICCs for Equal Opportunity Relationships with Groups Items for MEOCS-LITE



Concerns about Discrimination

As can be seen in Table 19, all the items in the Concerns about Discrimination scale have good discriminability. The five items with the highest discriminability are: ISS 49, ISS 50, ISS 51, ISS 52, and ISS 53. These are the same items selected in my previous study (Truhon, 1999). This scale has a marginal reliability of .75 and (the reduced scale) an internal consistency of .87 (Δ .87 for all cases). Those items are listed below:

Table 19
Estimated Parameters for Concerns about Discrimination Items from the MEOCS-LITE using Samejima's Graded Response Model

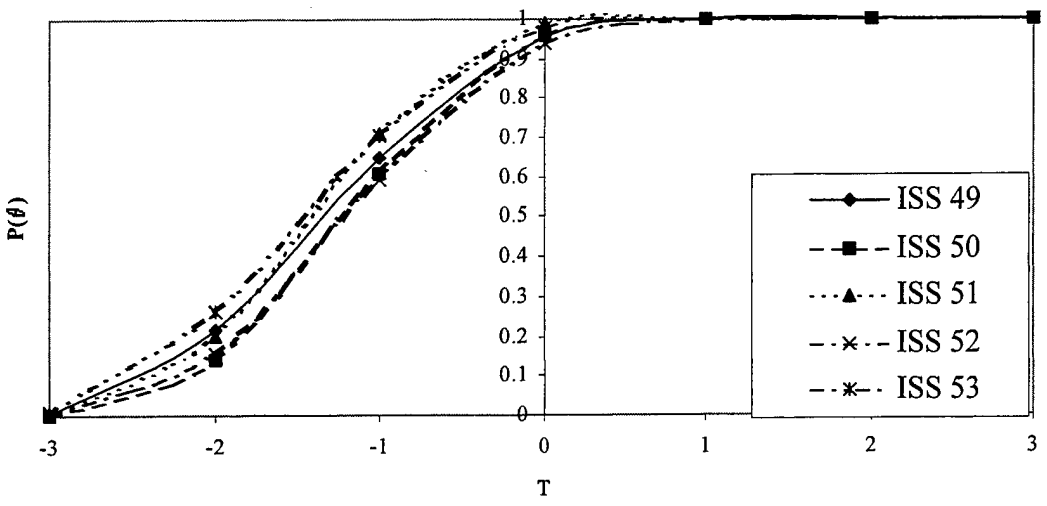
Item Number	a	b_1	b_2	b_3	b_4
ISS 49	2.62	-2.14	-1.70	-1.08	-0.35
ISS 50	3.18	-1.98	-1.57	-0.97	-0.32
ISS 51	3.20	-2.09	-1.73	-1.17	-0.51
ISS 52	2.26	-1.97	-1.54	-0.94	-0.34
ISS 53	2.50	-2.22	-1.81	-1.21	-0.60
ISS 54	2.06	-2.59	-2.20	-1.58	-0.98

Concerns with:
ISS 49 racism or race discrimination.
ISS 50 sexism or gender discrimination.
ISS 51 sexual harassment.
ISS 52 preferential treatment for women.

ISS 53 preferential treatment for minority members.

The ICCs for these items are presented in Figure 20. All the ICCs are rapidly accelerating ogives.

Figure 20
ICCs for Concerns about Discrimination Items for MEOCS-LITE



Sexual Harassment and Discrimination

There are only four items in the Sexual Harassment and Discrimination scale. As can be seen in Table 20, all items have quite good discriminability indices. This scale has a marginal reliability of .73 and an internal consistency of .87 (Δ .87 for all cases). The four items are listed below:

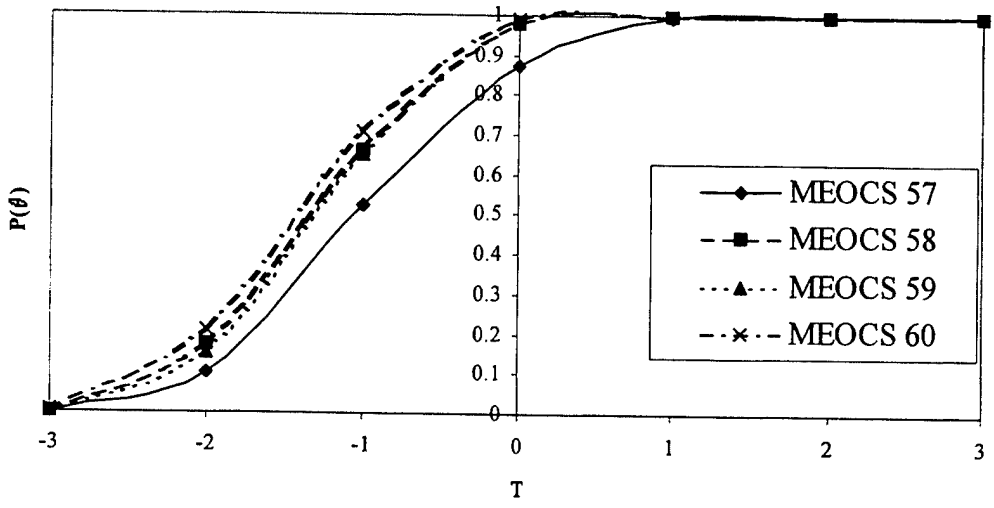
Table 20
Estimated Parameters for Sexual Harassment and Discrimination Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 57	2.46	-1.82	-1.39	-0.76	-0.03
MEOCS 58	3.38	-2.04	-1.66	-1.09	-0.44
MEOCS 59	3.54	-2.00	-1.63	-1.07	-0.40
MEOCS 60	2.85	-2.11	-1.69	-1.19	-0.65

MEOCS 57 A male supervisor touched a female peer in a friendly manner, but never touched male peers.
MEOCS 58 When a woman complained of sexual harassment to her superior, he told her, "You're being too sensitive."
MEOCS 59 A supervisor referred to women subordinates by their first names in public while using titles for the male subordinates.
MEOCS 60 The person in charge assigned an attractive female to escort visiting male officials because, "We need someone nice looking to show them around."

The ICCs for these items are presented in Figure 21. All the ICCs are rapidly accelerating ogives.

Figure 21
ICCs for Sexual Harassment and Discrimination Items for MEOCS-LITE



Differential Command Behavior toward Minorities and Women

There are five items in the Differential Command Behavior toward Minorities and Women scale. As can be seen in Table 21, all items have good discriminability. They have a marginal reliability of .72 and an internal consistency of .91 (Δ .91 for all items). The five items are listed below:

Table 21
Estimated Parameters for Differential Command Behavior towards Minorities and Women Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 61	3.14	-1.94	-1.55	-0.98	-0.31
MEOCS 62	3.48	-1.94	-1.56	-1.00	-0.37
MEOCS 63	3.77	-2.09	-1.71	-1.17	-0.54
MEOCS 64	3.23	-2.26	-1.83	-1.24	-0.63
MEOCS 65	3.02	-2.30	-1.85	-1.27	-0.63

MEOCS 61 A majority supervisor frequently reprimanded a minority employee but rarely reprimanded a majority employee who had the same level of performance.

MEOCS 62 A majority supervisor did not select a qualified minority subordinate for promotion but did select qualified majority members.

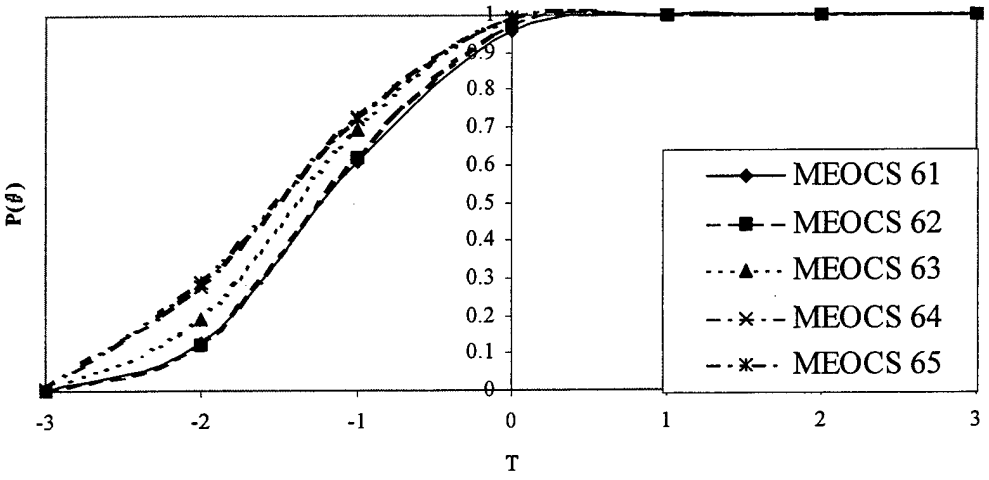
MEOCS 63 A minority person was assigned less desirable office space than a majority person.

MEOCS 64 The person in charge changed the duty assignments when it was discovered that two persons of the same minority were assigned to the same sensitive area on the same shift.

MEOCS 65 While giving a talk, the person in charge of the organization took more time to answer questions from majority members than from minority members.

The ICCs for these items are presented in Figure 22. All the ICCs are rapidly accelerating ogives.

Figure 22
ICCs for Differential Command Behavior toward Minorities and Women for MEOCS-LITE



Positive EO Behavior

There are only five items in the Positive EO Behavior scale. As can be seen in Table 22, all five items have good discriminability. The scale has a marginal reliability of .90 and an internal consistency of .95 (Δ .95 for all cases). These items are listed below:

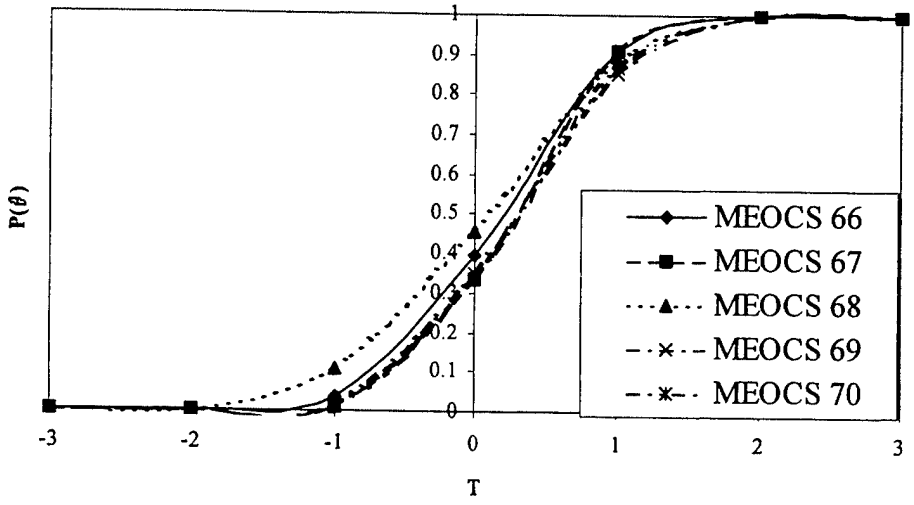
MEOCS 66 Majority and minority supervisors were seen having lunch together.
MEOCS 67 Majority and minority personnel were seen having lunch together.
MEOCS 68 A new minority person joined the organization and quickly developed close majority friends within the organization.
MEOCS 69 Majority and minority members were seen socializing together.
MEOCS 70 Majority personnel joined minority friends at the same table in the cafeteria or designated eating area.

Table 22
Estimated Parameters for Positive EO Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 66	3.01	-0.63	-0.03	0.50	0.83
MEOCS 67	3.95	-0.49	0.09	0.59	0.92
MEOCS 68	3.03	-0.93	-0.21	0.48	0.92
MEOCS 69	4.25	-0.54	0.09	0.62	1.02
MEOCS 70	3.58	-0.56	0.06	0.59	0.96

The ICCs for these items are presented in Figure 23. All the ICCs are gradually accelerating ogives.

Figure 23
ICCs for Positive EO Behaviors for MEOCS-LITE



Racist/Sexist Behavior

There are only four items in the Racist/Sexist Behavior scale. As can be seen in Table 23, all four items have good discriminability. The scale has a marginal reliability of .77 and an internal consistency of .86 (Δ .86 for all cases), but it improves slightly if item MEOCS 72 is removed (Δ .86; Δ .86 for all cases). These items are listed below:

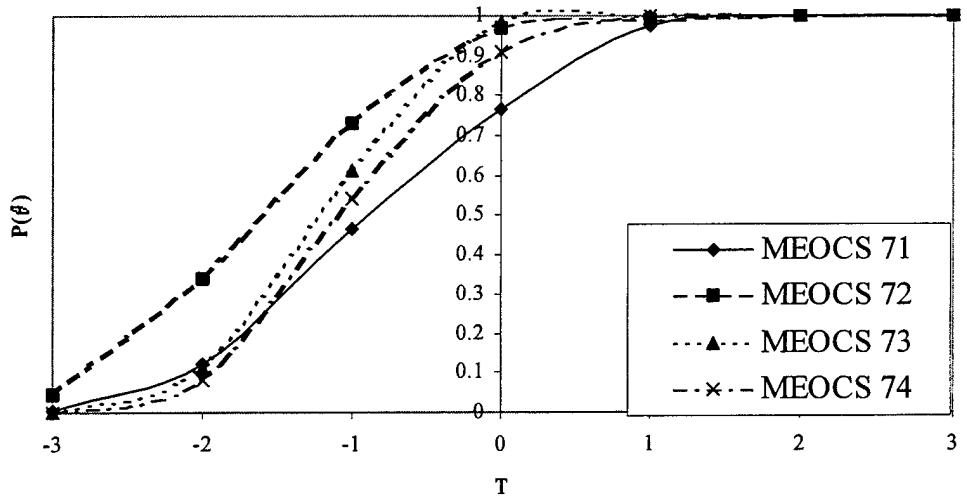
MEOCS 71 A majority person told several jokes about minorities.
MEOCS 72 Graffiti written on the organization's rest room or latrine walls "put down" minorities or women.
MEOCS 73 Offensive racial/ethnic names were frequently heard.
MEOCS 74 Racial/ethnic jokes were frequently heard.

Table 23
Estimated Parameters for Racist/Sexist Behavior Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 71	2.05	-1.88	-1.31	-0.50	0.35
MEOCS 72	1.88	-2.43	-1.93	-1.29	-0.69
MEOCS 73	4.24	-1.94	-1.57	-0.98	-0.38
MEOCS 74	3.79	-1.87	-1.47	-0.80	-0.09

The ICCs for these items are presented in Figure 24. All the ICCs are rapidly accelerating ogives.

Figure 24
ICCs for Racist/Sexist Behavior Items for MEOCS-LITE



Reverse Discrimination

There are only four items in the Reverse Discrimination scale. As can be seen in Table 24, all items have good discriminability. The scale has a marginal reliability of .73 and an internal consistency of .88 (Δ .88 for all cases). These items are listed below:

MEOCS 75 The person in charge did not appoint a qualified majority person to a key position, but instead appointed a less qualified minority person.

MEOCS 76 A minority man was selected for a prestigious assignment over a majority man who was equally, if not slightly better, qualified.

MEOCS 77 A minority woman was selected to receive an award for an outstanding act, even though she was not perceived by her peers as being as qualified as her nearest competitor, a majority man.

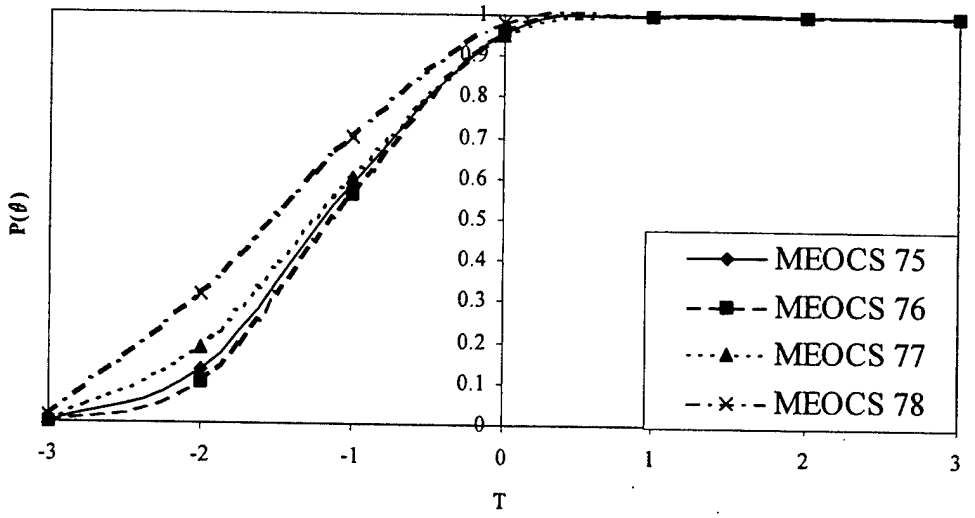
MEOCS 78 A majority and a minority person each turned in similar pieces of equipment with similar problems. The minority person was given a new issue; the majority person's equipment was sent to maintenance for repairs.

Table 24
Estimated Parameters for Reverse Discrimination Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 75	3.61	-1.97	-1.55	-0.91	-0.26
MEOCS 76	4.11	-1.92	-1.53	-0.85	-0.24
MEOCS 77	2.64	-2.08	-1.58	-0.94	-0.34
MEOCS 78	2.53	-2.36	-1.90	-1.18	-0.56

The ICCs for these items are presented in Figure 25. All the ICCs are rapidly accelerating ogives.

Figure 24
ICCs for Reverse Discrimination Items from MEOCS-LITE



General EO Climate

There are only two items in the General EO Climate scale. As can be seen in Table 25, both items have high discriminability indices. The scale has a marginal reliability of .86 and an internal consistency of .92 (Δ .91 for all items). These items are listed below:

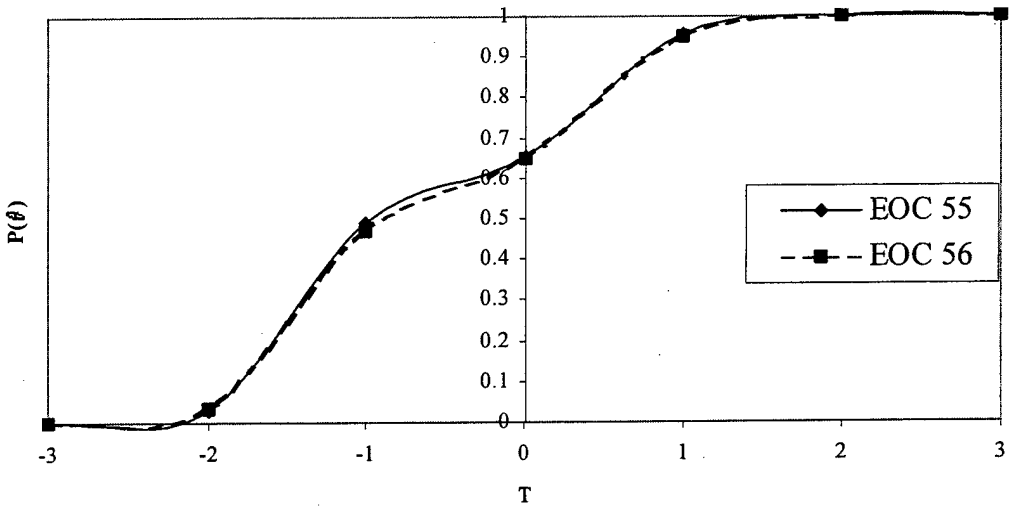
Table 25
Estimated Parameters for General EO Climate Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOC 55	5.50	-1.79	-1.35	-0.05	0.84
EOC 56	4.69	-1.77	-1.25	-0.05	0.83

EOC 55 Most people would rate the equal opportunity climate in this organization.....
EOC 56 I personally rate the equal opportunity climate in this organization.....

The ICCs for these items are presented in Figure 26. Both ICCs are rapidly accelerating ogives.

Figure 25
ICCs for General Equal Opportunity Climate Items from MEOCS-LITE



Perceived Work Group Effectiveness

There are five items in the Perceived Work Group Effectiveness scale. As can be seen in Table 26, all items have good discriminability. The scale has a marginal reliability of .80 and an internal consistency of .92 (Δ= .92 for all cases). These items are listed below:

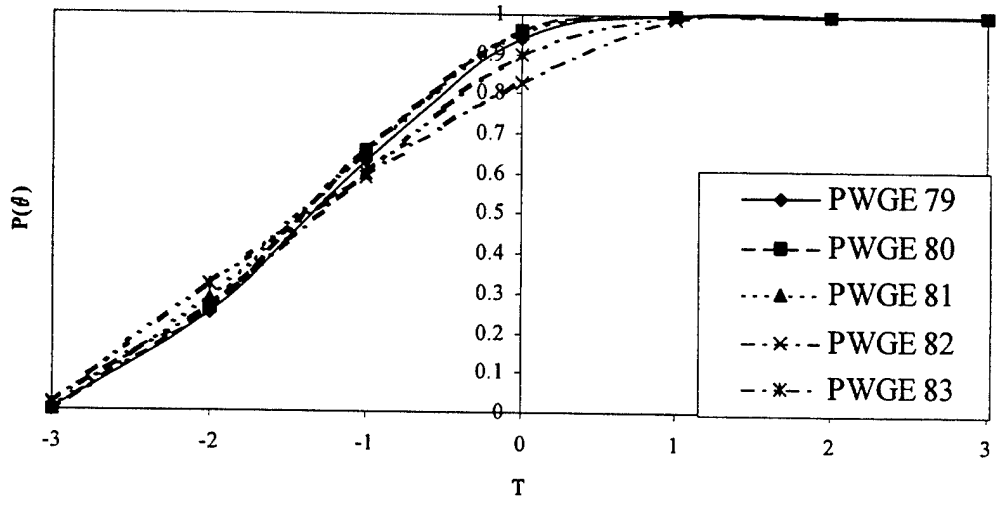
Table 26
Estimated Parameters for Perceived Work Group Effectiveness Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
PWGE 79	3.34	-2.23	-1.76	-1.02	-0.21
PWGE 80	4.04	-2.25	-1.79	-1.07	-0.24
PWGE 81	3.09	-2.31	-1.83	-1.07	-0.28
PWGE 82	2.37	-2.35	-1.72	-0.90	0.16
PWGE 83	2.67	-2.40	-1.92	-0.91	-0.10

PWGE 79 The amount of output of my work group is very high.
PWGE 80 The quality of output of my work group is very high.
PWGE 81 When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.
PWGE 82 My work group always gets maximum output from available resources (e.g., personnel and materials).
PWGE 83 My work group's performance in comparison to similar work groups is high.

The ICCs for these items are presented in Figure 27. All the ICCs are rapidly accelerating ogives.

Figure 26
ICCs for Perceived Work Group Effectiveness Items from MEOCS-LITE



Commitment

As can be seen in Table 27, all but two items (COM 87 and COM 88) have good discriminability. The best five items are the same five items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .86 and (the reduced scale) an internal consistency .89 (Δ= .89 for all items), which improves slightly to .89 (Δ= .89 for all items) if COM 84 is removed. These items are listed below:

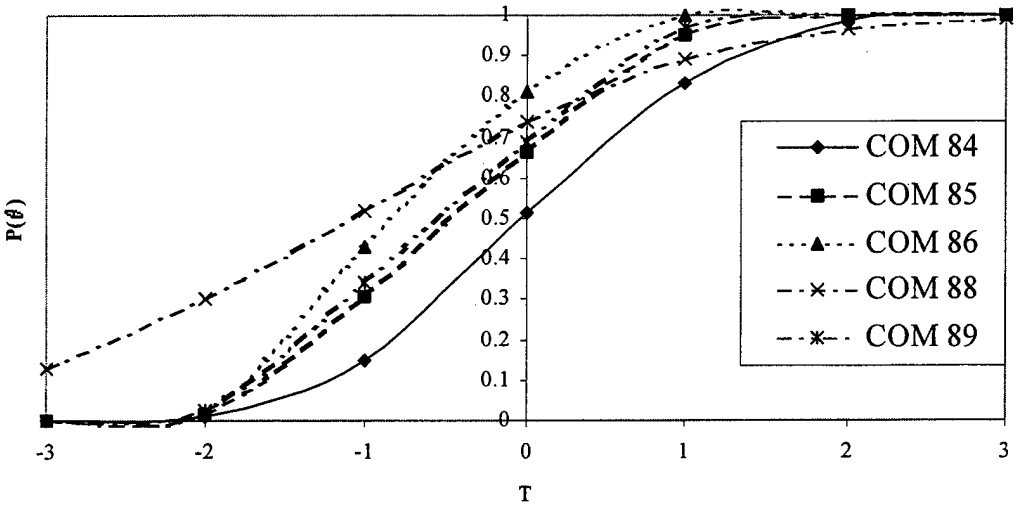
Table 27
Estimated Parameters for Commitment Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
COM 84	1.86	-0.89	-0.48	0.34	1.06
COM 85	2.94	-1.42	-0.86	-0.11	0.71
COM 86	3.32	-1.55	-1.16	-0.48	0.14
COM 87	0.09	-3.61	3.33	12.27	19.50
COM 88	0.81	-2.49	-1.66	-0.56	0.35
COM 89	2.67	-1.49	-0.94	-0.19	0.56

COM 84 I would accept almost any type of assignment in order to stay in this unit.
COM 85 I find that my values and the unit's values are very similar.
COM 86 I am proud to tell others that I am part of this unit.
COM 88 This unit really inspires me to perform my job in the very best manner possible.
COM 89 I am extremely glad to be part of this unit compared to other, similar units that I could be in.

The ICCs for these items are presented in Figure 28. The ICCs for these items range from gradually to rapidly accelerating ogives.

Figure 28
ICCs for Commitment Items for MEOCS-LITE



Job Satisfaction

There are five items in the Job Satisfaction scale. As can be seen in Table 28, all items have good discriminability. The scale has a marginal reliability of .81 and an internal consistency of .86 (Δ= .86 for all cases). The items are presented below:

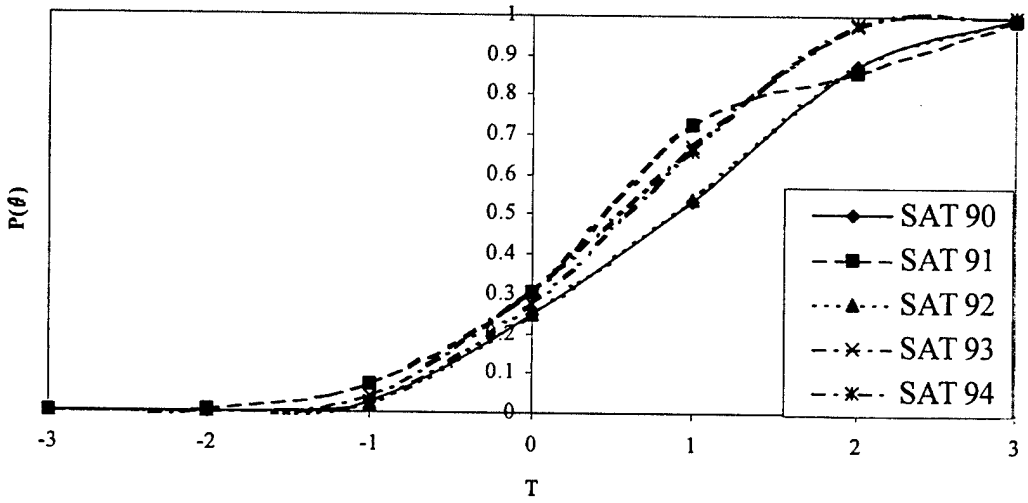
Level of satisfaction with
SAT 90 the chance to help people and improve their welfare through the performance of my job.
SAT 91 my amount of effort compared to the effort of my co-workers.
SAT 92 the recognition and pride my family has in the work I do.
SAT 93 the chance to acquire valuable skills in my job that prepare me for future opportunities.
SAT 94 my job as a whole.

Table 28
Estimated Parameters for Job Satisfaction Items from the MEOCS-LITE using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
SAT 90	2.19	-0.41	0.44	1.36	1.91
SAT 91	1.87	-0.68	0.27	1.20	2.00
SAT 92	2.18	-0.32	0.35	1.37	1.91
SAT 93	2.41	-0.57	0.22	0.91	1.45
SAT 94	2.88	-0.53	0.35	0.92	1.50

The ICCs for these items are presented in Figure 29. All the ICCs are gradually accelerating ogives.

Figure 29
ICCs for Job Satisfaction Items for MEOCS-LITE



SLEOCS

Method

At the time of these analyses there were 1,897 cases in the SLEOCS database. Eliminating cases with missing data reduced the sample to 995. This reduced sample was reduced to two nearly equal subsamples (n_1= 498; n_2= 497).

Characteristics of the subset were as follows: Approximately 42 percent were in the Army, 32 percent in the Air Force, 13 percent in the Navy, 8 percent in the Federal Civil Service, 4 percent in the Marine Corps, and 1 percent in the Coast Guard. Active-duty organizations comprised 44 percent of the subset, civilian organizations 24 percent, National Guard organizations 16 percent, and reserve organizations 14 percent.

In terms of demographic information, the majority of respondents (92 percent) were male. More than half of the respondents (92 percent) were White, 6 percent African American, 1 percent Hispanic, less than 1 percent Asian American, less than 1 percent Native American, and less than 1 percent other or unknown. Education level was extremely high with less than 1 percent possessing a high school diploma or some college, 22 percent a college degree, 60 percent a master's degree, and 17 percent a doctoral degree. The respondents were older than other samples: 2 percent younger than 40, 9 percent age 41 to 45, 42 percent age 46 to 50, 37 percent age 51 to 55, 10 percent age 56 to 60, and 1 percent older than 61.

Previous work (Truhon, 1999) had analyzed the SLEOCS into 15 clusters or scales: EO's Link to Leadership and Readiness; Success of EO; the Importance of EO; EO Issues concerning Relationships between Racial/Ethnic groups, EO Issues concerning Relationships between the Sexes, Concerns about Discrimination, Sexual Harassment and Discrimination, Differential Command Behavior toward Minorities, Positive EO Behavior, Racist/Sexist Behavior, Reverse Discrimination, General EO Climate, Positive or Negative Personal Interactions, Work-Related Interactions, and Active or Passive Interactions.

Results

EO's Link to Leadership and Readiness

Of the seven items in the EO's Link to Leadership and Readiness scale, five have good discrimination indices (EOP 19, EOP 25, EOP 26, EOP 37, and EOP 38; see Table 29). These are the same items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .71 and (the reduced scale) an internal consistency of .77 (Δ= .76 for all cases). These items are presented below:

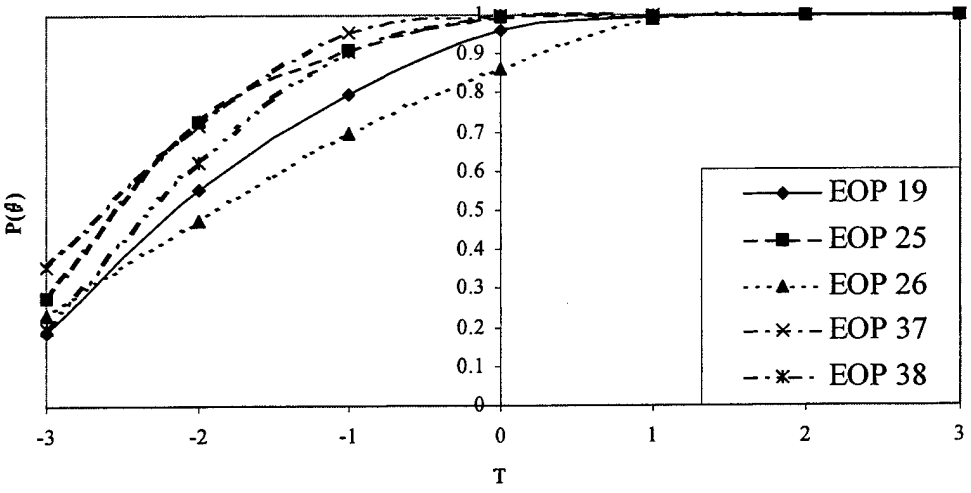
Table 29
Estimated Parameters for EO's Link to Leadership and Readiness Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOP 19	1.64	-3.04	-2.46	-1.95	-0.64
EOP 25	2.28	-3.01	-2.91	-2.62	-1.16
EOP 26	2.16	-3.40	-2.42	-1.35	0.06
EOP 30	0.97	-5.79	-3.27	-1.54	1.67
EOP 31	0.99	-4.71	-3.80	-3.11	-0.61
EOP 37	2.30	-3.44	-3.00	-2.36	-1.40
EOP 38	2.74	-3.11	-2.65	-2.03	-1.12

EOP 19 EO plays a critical part in readiness.
EOP 25 I support the EO program in my Service or agency.
EOP 26 There is a strong link between EO in an organization and getting the job done.
EOP 37 It is extremely important for the organizational commander or head to model appropriate EO behaviors.
EOP 38 EO is everybody's business.

The ICCs for these items are presented in Figure 30. As can be seen they have strong discriminability and reach asymptote at low levels of T.

Figure 30
ICCs for EO's Link to Leadership and Readiness Items for SLEOCS



Success of EO Programs

Of the eight items that make up the Success of EO Programs scale, six items have high discrimination indices (see Table 30). The five items with the highest discriminability are EOP 21, EOP 40, EOP 41, EOP 42, and EOP 43. These are the same items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .86 and (the reduced scale) an internal consistency of .82 (Δ= .84 for all cases), but increases slightly to .82 (Δ= .84 for all cases) if item EOP 21 is removed. These items are presented below.

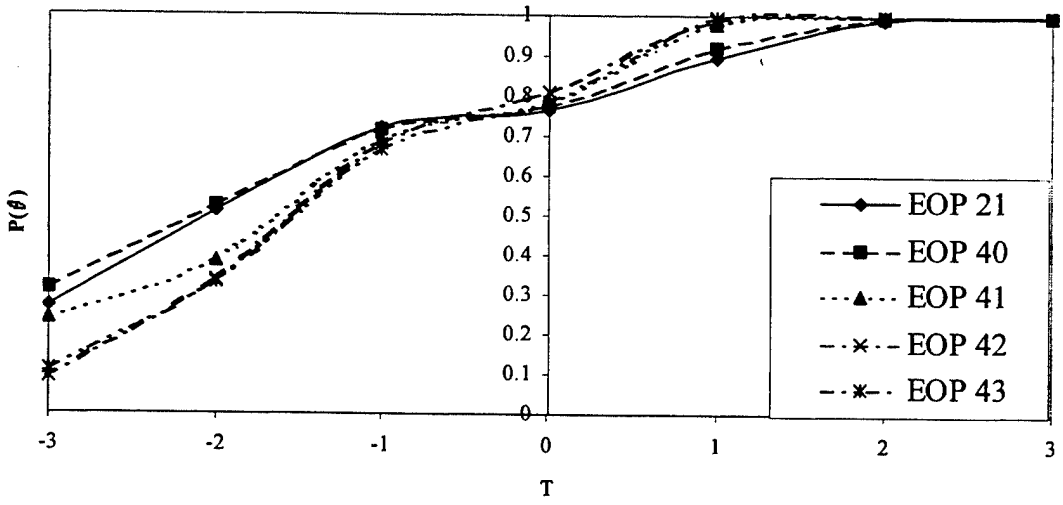
EOP 21 Overall, my Service or agency does an excellent job of providing EO to all members.
EOP 40 EO issues are generally handed equitably in my Service or agency.
EOP 41 The discipline system in my Service or agency is fair to all groups.
EOP 42 The promotion system in my Service or agency is fair to all groups.
EOP 43 The assignment system in my Service or agency is fair to all groups.

Table 30
Estimated Parameters for Success of EO Programs Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOP 21	1.70	-3.85	-2.35	-1.73	0.88
EOP 22	0.84	-6.48	-4.35	-1.67	0.49
EOP 23	0.74	-8.81	-4.64	-0.06	2.28
EOP 27	1.61	-4.64	-2.82	-1.46	-0.98
EOP 40	1.84	-4.30	-2.67	-1.56	0.71
EOP 41	2.51	-3.68	-2.00	-1.28	0.40
EOP 42	2.70	-2.86	-1.85	-1.22	0.25
EOP 43	3.10	-2.95	-1.85	-1.13	0.33

The ICCs for these items are presented in Figure 31. As can be seen these items have strong discriminability and reach asymptote at low levels of T.

Figure 31
ICCs for Success of EO Programs Items for SLEOCS



Importance of EO

Of the seven items that comprise the Importance of EO scale, five have strong discrimination indices (EOP 33, EOP 34, EOP 35, EOP 36, and EOP 39; see Table 31). That matches four out of the five items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .73 and (the reduced scale) an internal consistency of .65 (Δ= .67 for all cases). These five items are listed below.

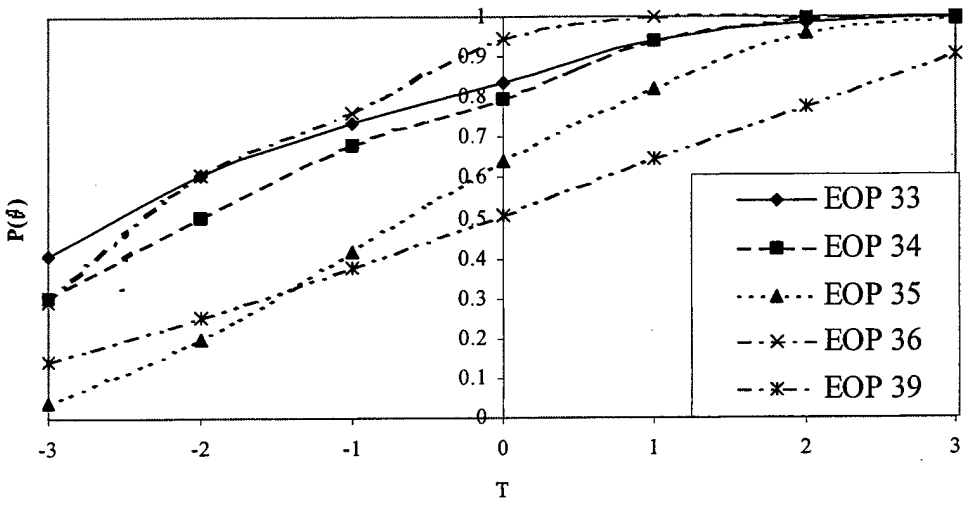
EOP 33 There is a need for a "safety valve" outside the chain-of-command to resolve some EO complaints.
EOP 34 EO climate assessment is an important tool in resolving EO issues or improving the EO climate.
EOP 35 Affirmative action is an important element of an EO program.
EOP 36 EO education or training is an important element in an EO program.
EOP 39 My Service or agency should expand its EO programs.

Table 31
Estimated Parameters for Importance of EO Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOP 20	0.36	1.18	5.26	7.89	11.23
EOP 29	0.04	-25.58	24.45	65.23	99.54
EOP 33	1.02	-4.59	-2.99	-2.16	0.32
EOP 34	1.67	-3.73	-2.74	-1.32	0.46
EOP 35	1.39	-2.28	-1.16	-0.15	1.27
EOP 36	2.45	-3.18	-2.99	-1.95	-0.32
EOP 39	1.12	-3.12	-0.98	0.85	2.72

The ICCs for these items are presented in Figure 32. Most of the curves rise quickly, although the curve for item EOP 39 appears to be more of a straight line than an ogive.

Figure 32
ICCs for Importance of EO Items for SLEOCS



EO Issues concerning Relationships between Racial/Ethnic Groups

All six items in the EO Issues concerning Relationships between Racial/Ethnic Groups scale has high discrimination indices (see Table 32). The five items with the highest discriminability are ISS 44, ISS 45, ISS 46, ISS 47, and ISS 48. These are the same items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .90 and (the reduced scale) an internal consistency of .91 (Δ= .91 for all cases). These items are presented below:

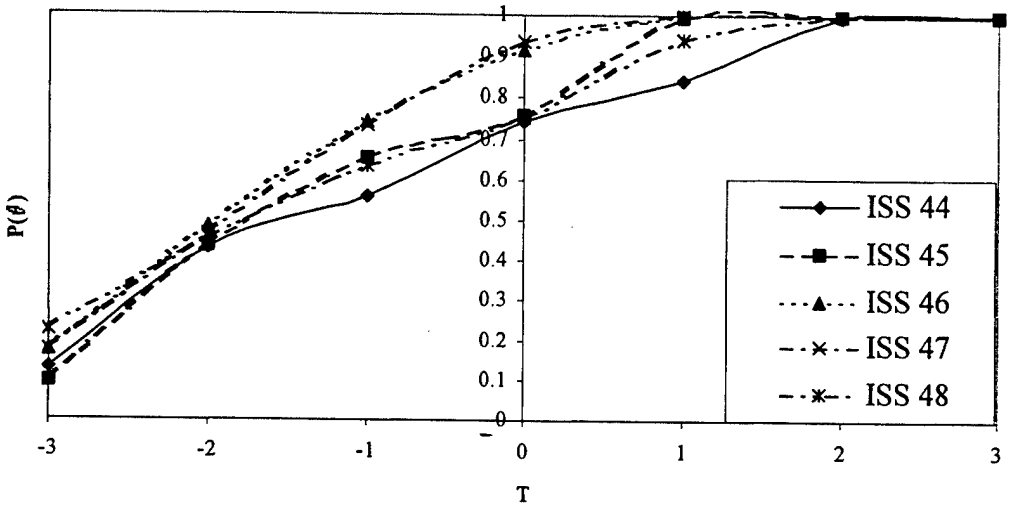
The degree to which there is a problem in the relationship between:
ISS 44 Black (African-American) and White members.
ISS 45 Hispanic and White members.
ISS 46 Asian-Pacific and White members.
ISS 47 Native American and White members.
ISS 48 Minority and majority members in general.

Table 32
Estimated Parameters for EO Issues concerning Relationships between Racial/Ethnic Groups Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
ISS 44	2.74	-3.00	-2.21	-0.76	1.11
ISS 45	4.03	-2.92	-2.15	-1.07	0.48
ISS 46	3.46	-3.13	-2.33	-1.55	-0.12
ISS 47	3.51	-3.13	-2.26	-1.43	-0.17
ISS 48	3.75	-3.33	-2.24	-1.02	0.81
ISS 49	2.59	-3.75	-2.38	-1.06	0.71

The ICCs for these items are presented in Figure 33. All the ICCs are gradually accelerating ogives.

Figure 33
ICCs for EO Issues concerning Relationships with Racial/Ethnic Groups Items for SLEOCS



EO Issues concerning Relationships between the Sexes

There are only five items in the EO Issues concerning Relationships between the Sexes scale. As can be seen in Table 33, all five items have strong discrimination indices. The scale has a marginal reliability of .89 and an internal consistency of .85 (Δ= .84 for all cases). The items are presented below.

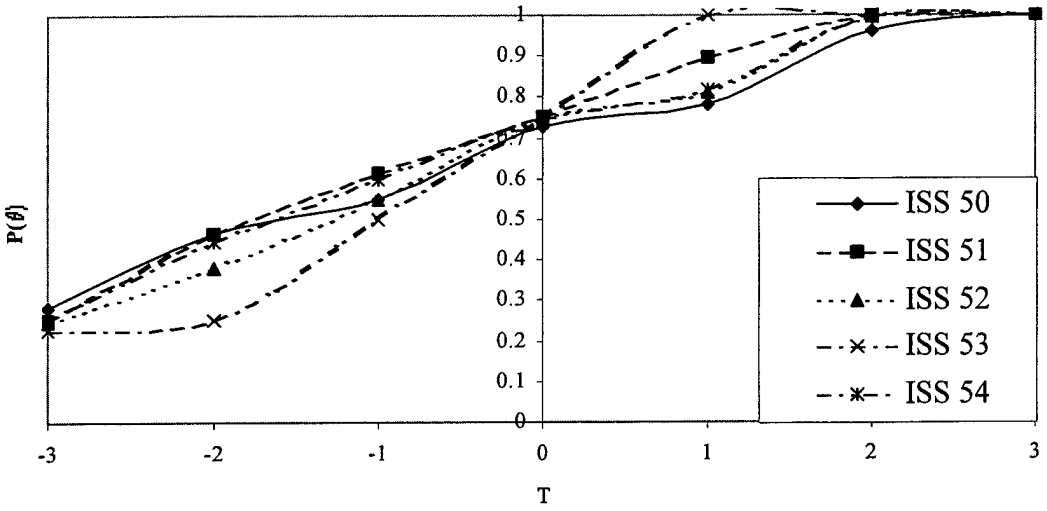
Table 33
Estimated Parameters for EO Issues concerning Relationships between the Sexes Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
ISS 50	2.10	-4.43	-2.50	-0.63	1.53
ISS 51	2.69	-3.67	-2.38	-0.97	0.92
ISS 52	3.32	-3.97	-2.01	-0.75	1.19
ISS 53	13.43	-3.10	-1.72	-0.59	0.67
ISS 54	3.01	-4.03	-2.24	-0.92	1.20

The degree to which there is a problem in the relationship between:
ISS 50 women and men.
ISS 51 minority women and minority men.
ISS 52 minority women and majority men.
ISS 53 majority women and minority men.
ISS 54 majority women and majority men.

The ICCs for these items are presented in Figure 34. All the ICCs are rapidly accelerating ogives.

Figure 34
ICCs for EO Issues Concerning Relationships between the Sexes Items for SLEOCS



Concerns about Discrimination

The five items that comprise the Concerns about Discrimination scale have good discrimination indices (see Table 34). The scale has a marginal reliability of .86 and an internal consistency of .85 (Δ= .84 for all cases). The items are presented below.

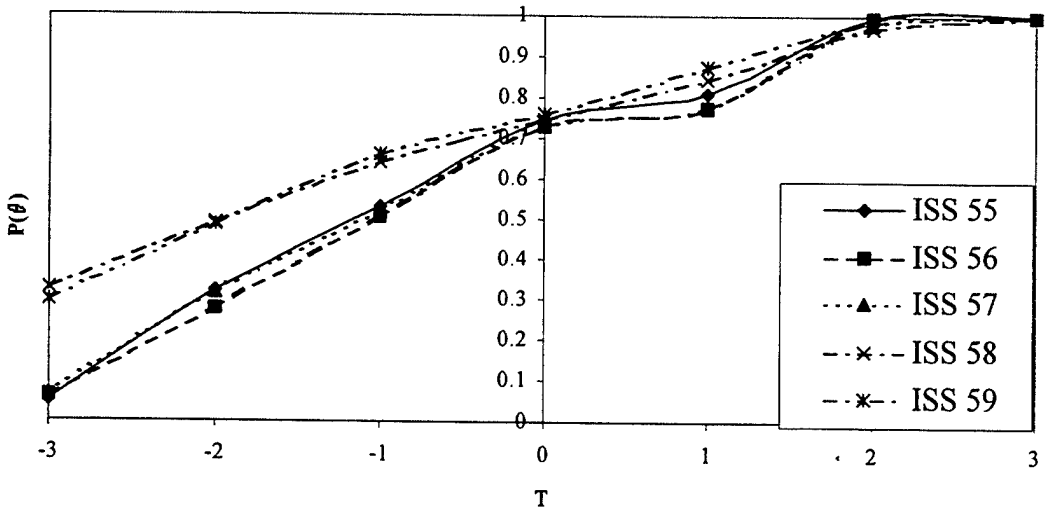
Table 34
Estimated Parameters for Concerns about Discrimination Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
ISS 55	3.21	-2.74	-1.84	-0.64	1.21
ISS 56	3.47	-2.80	-1.66	-0.42	1.38
ISS 57	2.68	-2.77	-1.81	-0.51	1.47
ISS 58	1.50	-4.44	-2.71	-1.11	1.19
ISS 59	1.52	-3.90	-2.61	-1.25	0.99

Concerns with:
ISS 55 racism or race discrimination.
ISS 56 sexism or gender discrimination.
ISS 57 sexual harassment.
ISS 58 preferential treatment for women.
ISS 59 preferential treatment for minority members.

The ICCs for these items are presented in Figure 35. All the ICCs are rapidly accelerating ogives.

Figure 35
ICCs for Concerns about Discrimination Items for SLEOCS



Sexual Harassment and Discrimination

There are only four items in the Sexual Harassment and Discrimination scale, but they all have good discrimination indices (see Table 35). The scale has a marginal reliability of .82 and an internal consistency of .80 (Δ= .81 for all cases). These items are presented below:

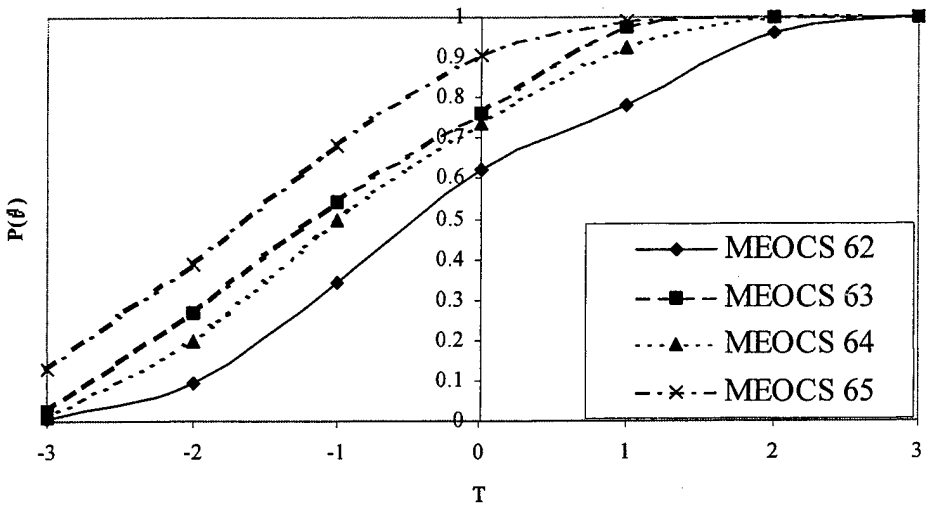
Table 35
Estimated Parameters for Sexual Harassment and Discrimination Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 62	2.07	-1.84	-0.87	-0.04	1.51
MEOCS 63	2.80	-2.53	-1.63	-0.72	0.52
MEOCS 64	2.33	-2.20	-1.43	-0.55	0.77
MEOCS 65	1.62	-2.92	-1.99	-1.27	-0.25

MEOCS 62 A male supervisor touched a female peer in a friendly manner, but never touched male peers.
MEOCS 63 When a woman complained of sexual harassment to her superior, he told her, "You're being too sensitive."
MEOCS 64 A supervisor referred to women subordinates by their first names in public while using titles for the male subordinates.
MEOCS 65 The person in charge assigned an attractive female to escort visiting male officials because, "We need someone nice looking to show them around."

The ICCs for these items are presented in Figure 36. All the ICCs are gradually accelerating ogives.

Figure 36
ICCs for Sexual Harassment and Discrimination Items for SLEOCS



Differential Command Behavior toward Minorities and Women

As can be seen in Table 36, the five items that comprise the Differential Command Behavior toward Minorities and Women scale all have high discrimination indices. The scale has a marginal reliability of .78 and an internal consistency of .87 (Δ= .87 for all cases). These items are presented below.

Table 36
Estimated Parameters for Differential Command Behavior toward Minorities and Women Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 66	2.66	-2.96	-2.33	-1.33	0.11
MEOCS 67	2.18	-2.71	-1.98	-1.20	0.33
MEOCS 68	3.33	-2.91	-2.35	-1.64	-0.27
MEOCS 69	2.50	-3.11	-2.58	-1.86	-0.62
MEOCS 70	2.86	-2.99	-2.48	-1.91	-0.63

MEOCS 66 A majority supervisor frequently reprimanded a minority employee but rarely reprimanded a majority employee who had the same level of performance.

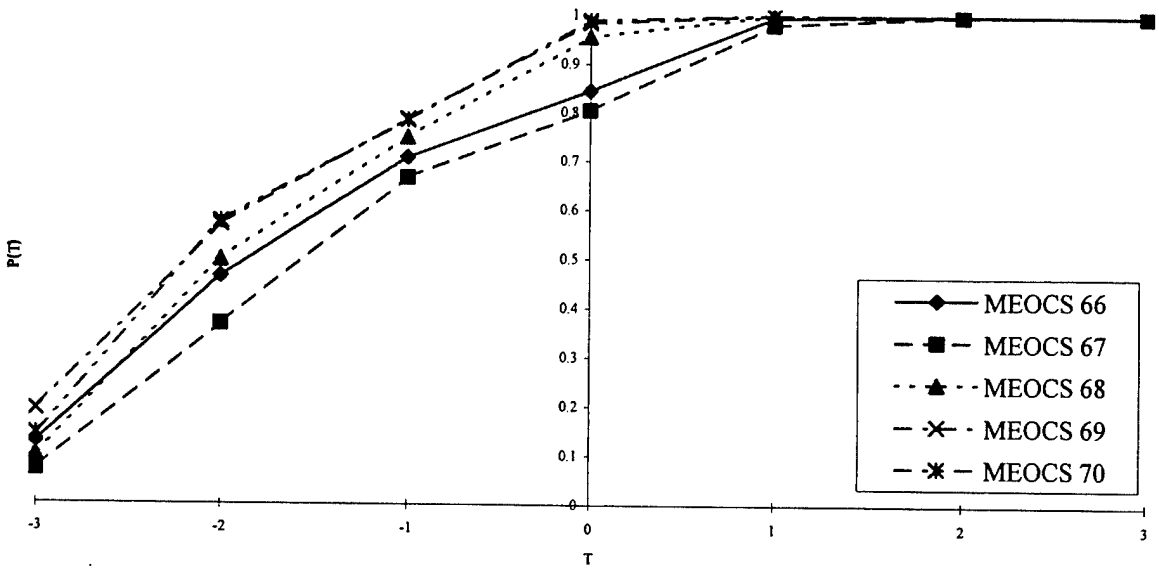
MEOCS 67 A majority supervisor did not select a qualified minority subordinate for promotion but did select qualified majority members.

MEOCS 68 A minority person was assigned less desirable office space than a majority person.

MEOCS 69 The person in charge changed the duty assignments when it was discovered that two persons of the same minority were assigned to the same sensitive area on the same shift.

The ICCs for these items are presented in Table 37. All the ICCs are rapidly accelerating ogives.

Figure 37
ICCs for Differential Command Behavior toward Minorities and Women Items for SLEOCS



Positive EO Behavior

The five items that comprise the Positive EO Behavior scale all have good discrimination indices (see Table 37). The scale has a marginal reliability of .85 and an internal consistency of .90 (Δ= .89 for all cases), but increases slightly (Δ= .91; Δ= .89 for all cases) if item MEOCS 73 is removed. These items are presented below.

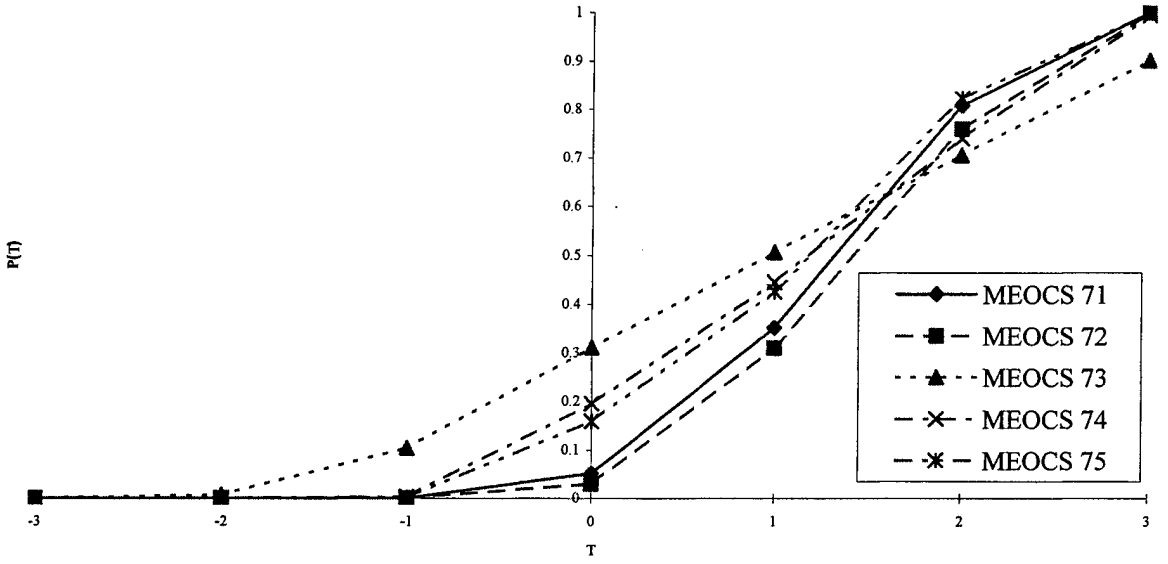
Table 37
Estimated Parameters for Positive EO Behavior Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 71	3.79	0.21	1.06	1.79	2.04
MEOCS 72	4.53	0.26	1.15	1.79	2.18
MEOCS 73	1.88	-0.87	0.27	1.64	2.85
MEOCS 74	3.41	-0.21	0.80	1.69	2.38
MEOCS 75	4.04	-0.08	0.88	1.72	2.05

MEOCS 71 Majority and minority supervisors were seen having lunch together.
MEOCS 72 Majority and minority personnel were seen having lunch together.
MEOCS 73 A new minority person joined the organization and quickly developed close majority friends within the organization.
MEOCS 74 Majority and minority members were seen socializing together.
MEOCS 75 Majority personnel joined minority friends at the same table in the cafeteria or designated eating area.

The ICCs for these items are presented in Figure 38. All the ICCs are gradually accelerating ogives.

Figure 38
ICCs for Positive EO Behaviors Items for SLEOCS



Racist/Sexist Behavior

The four items that comprise the Racist/Sexist Behavior scale all have good discrimination indices (see Table 38). The scale has a marginal reliability of .81 and an internal consistency of .84 (Δ= .83 for all cases). These items are presented below.

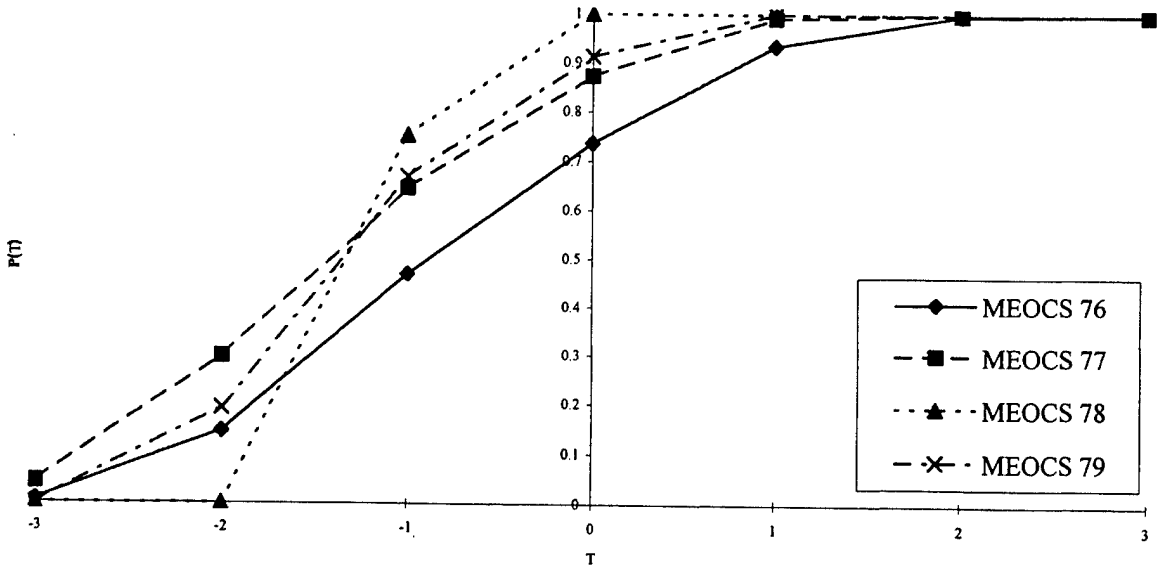
Table 38
Estimated Parameters for Racist/Sexist Behavior Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 76	2.20	-2.01	-1.26	-0.56	0.72
MEOCS 77	1.94	-2.47	-1.74	-1.15	-0.02
MEOCS 78	28.38	-1.63	-1.54	-1.49	-0.47
MEOCS 79	4.53	-2.09	-1.70	-1.09	-0.08

MEOCS 76 A majority person told several jokes about minorities.
MEOCS 77 Graffiti written on the organization's rest room or latrine walls "put down" minorities or women.
MEOCS 78 Offensive racial/ethnic names were frequently heard.
MEOCS 79 Racial/ethnic jokes were frequently heard.

The ICCs for these items are presented in Figure 39. All the ICCs are slowly accelerating ogives.

Figure 39
ICCs for Racist/Sexist Behavior Items for SLEOCS



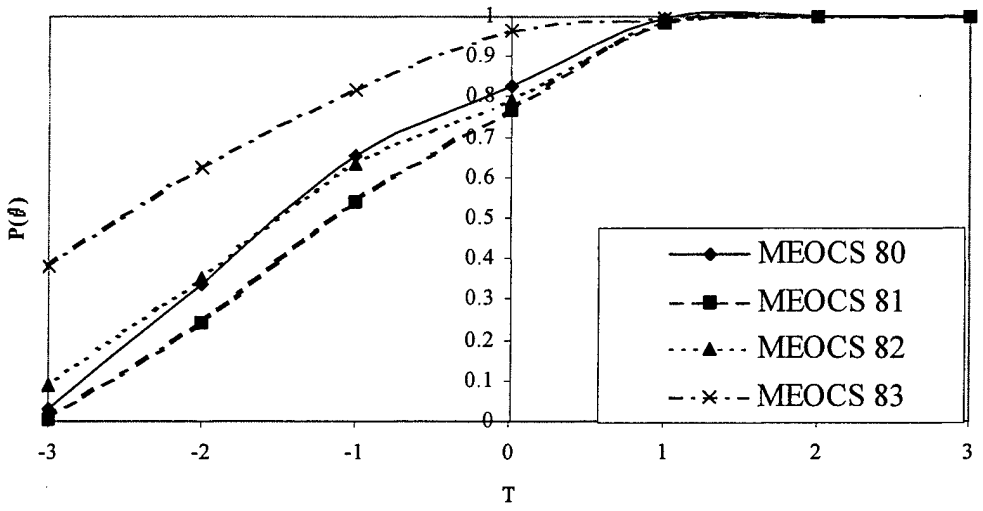
Reverse Discrimination

The four items that comprise the Reverse Discrimination scale all have good discrimination indices (see Table 39). The scale has a marginal reliability of .80 and an internal consistency of .81 (Δ= .81 for all cases), but increases slightly to .83 (Δ= .84 for all cases) if item MEOCS 83 is removed. These items are presented below.

Table 39
Estimated Parameters for Reverse Discrimination Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 80	2.78	-2.58	-1.91	-1.11	0.16
MEOCS 81	3.20	-2.29	-1.67	-0.72	0.44
MEOCS 82	2.44	-2.84	-1.92	-1.06	0.37
MEOCS 83	1.52	-3.81	-3.07	-2.05	-0.73

Figure 40
ICCs for Reverse Discrimination Items for SLEOCS



MEOCS 80 The person in charge did not appoint a qualified majority person to a key position, but instead appointed a less qualified minority person.

MEOCS 81 A minority man was selected for a prestigious assignment over a majority man who was equally, if not slightly better, qualified.

MEOCS 82 A minority woman was selected to receive an award for an outstanding act, even though she was not perceived by her peers as being as qualified as her nearest competitor, a majority man.

MEOCS 83 A majority and a minority person each turned in similar pieces of equipment with similar problems. The minority person was given a new issue; the majority person's equipment was sent to maintenance for repairs.

The ICCs for these items are presented in Figure 40. All the ICCs are rapidly accelerating ogives.

General EO Climate

As can be seen in Table 40, the two items in the General EO Climate scale have high discrimination indices. The scale has a marginal reliability of .78 and an internal consistency of .85 (Δ= .86 for all cases). Both items are presented below.

On a scale from 1 (very poor) to 5 (very good):

EOC 60 Most people would rate the equal opportunity climate in this organization

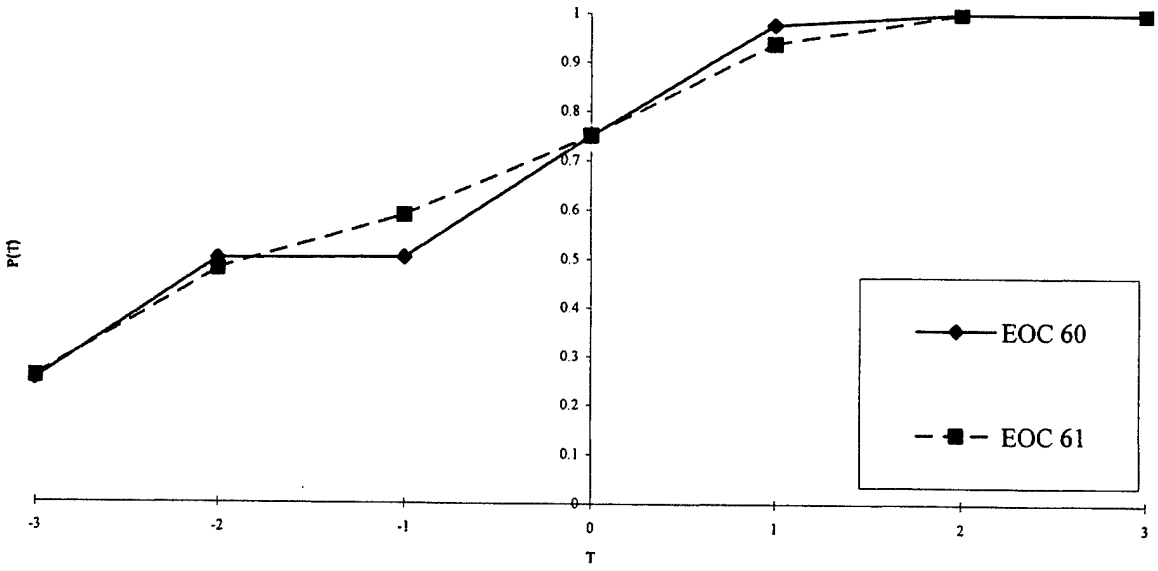
EOC 61 I personally rate the equal opportunity climate in this organization

Table 40
Estimated Parameters for General EO Climate Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOC 60	7.79	-4.87	-2.40	-0.62	0.83
EOC 61	3.60	-5.32	-2.38	-0.90	0.82

The ICCs for these items are presented in Figure 41. Both ICCs are rapidly accelerating ogives.

Figure 40
ICCs for General EO Climate Items for SLEOCS



Positive versus Negative Interpersonal Behavior

Of the seven items that comprise the Positive versus Negative Interpersonal Behavior scale, four have good discriminability indices (items LPC 84, LPC 88, LPC 89, and LPC95; see Table 41). Adding item LPC 90 results in a five-item scale, matching four items from my previous study. The scale has a marginal reliability of .85 and an internal consistency of .76 (Δ= .74 for all cases), but increases to .78 (Δ=. 76 for all cases) if item LPC 90 is removed. These five items are presented below.

Table 41
Estimated Parameters for Positive versus Negative Interpersonal Behavior Items from the SLEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
LPC 84	1.38	-1.50	0.53	1.67	2.70
LPC 87	0.05	-64.35	-33.41	-2.84	26.13
LPC 88	3.25	-1.12	0.34	1.35	2.28
LPC 89	3.74	-1.35	0.14	1.17	1.98
LPC 90	0.11	-28.18	-17.02	-6.95	3.99
LPC 93	0.09	-44.55	-22.24	-12.22	4.83
LPC 95	1.35	-2.47	-0.53	1.18	2.55

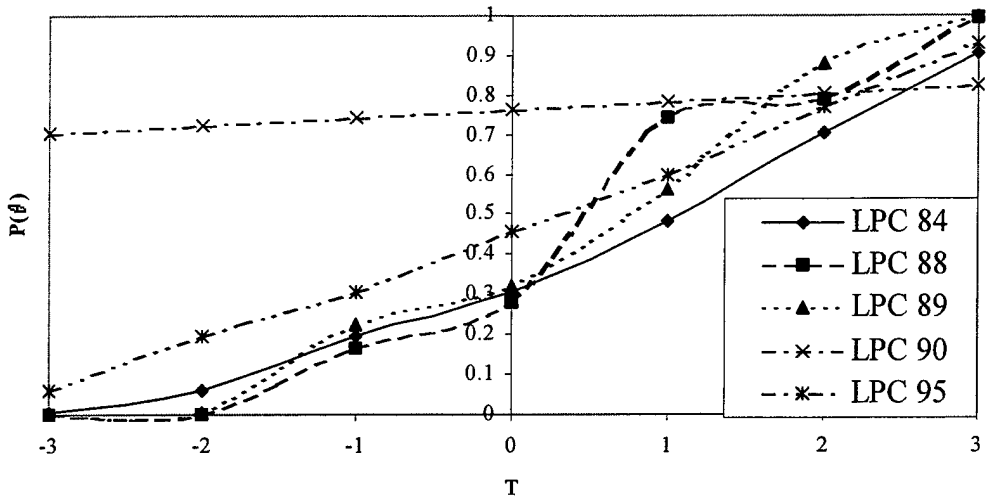
Think of the person with whom you have worked least well during your years with your Service or agency. Using the following scales indicate the degree to which you would describe that person as

1 2 3 4 5 6

LPC 84 Rejecting	Accepting
LPC 88 Distant	Close
LPC 89 Cold	Warm
LPC 90 Cooperative	Uncooperative
LPC 95 Gloomy	Cheerful

The ICCs for these are presented in Figure 42. The ICC for item LPC 90 is a straight line with little change across the range of Ts. The other items show steady increases, although items LPC 84 and LPC 95's curves do not appear ogive-shaped.

Figure 42
ICCs for Positive versus Negative Interpersonal Behavior Items for SLEOCS



Work-Related Interactions

Of the three items that comprise the Work-Related Interactions scale, two have good discriminability indices (see Table 42). The scale has a marginal reliability of .65 and an unacceptable internal consistency of .58 (Δ= .62 for all cases). These items are presented below.

Table 42
Estimated Parameters for Work-Related Interactions Items from the SLEOCS using Samejima's Graded Response Model

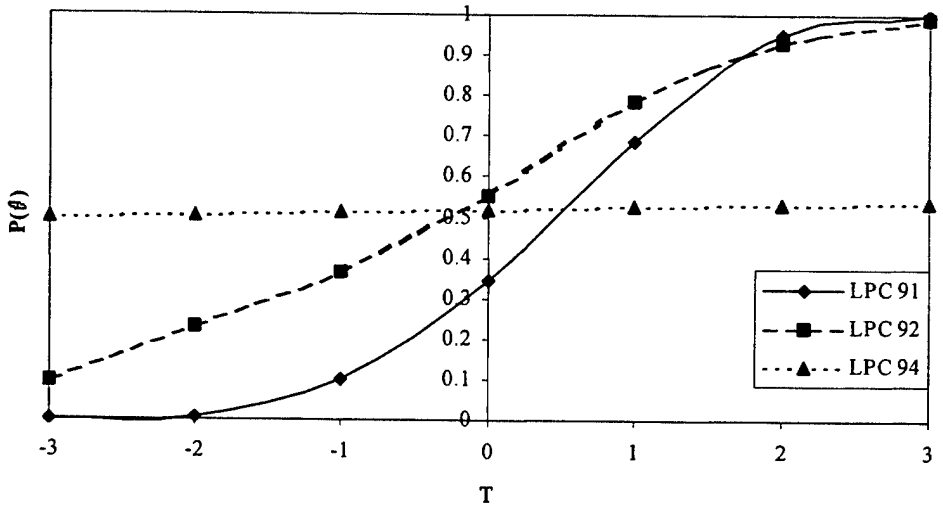
Item Number	a	b_1	b_2	b_3	b_4
LPC 91	2.27	-0.88	0.16	0.79	1.62
LPC 92	1.27	-2.76	-0.86	0.37	1.48
LPC 94	0.05	-68.88	-19.57	14.85	49.16

Think of the person with whom you have worked least well during your years with your Service or agency. Using the following scales indicate the degree to which you would describe that person as

	1 2 3 4 5 6	
LPC 91	Self-assured	Hesitant
LPC 92	Efficient	Inefficient
LPC 94	Boring	Interesting

The ICCs for these items are presented in Figure 43. Item LPC 94 is a straight line with little change across the values of T. The other two items display typical ogive curves.

Figure 43
ICCs for Work-Related Interactions Items for SLEOCS



Active versus Passive Behavior

Both items in the Active versus Passive Behavior scale have poor discriminability indices (see Table 43). The scale has marginal reliability of .01 and an internal consistency of .84 (Δ= .59 for all cases). Both items are presented below.

Table 43
Estimated Parameters for Active versus Passive Behavior Items from the SLEOCS using Samejima's Graded Response Model

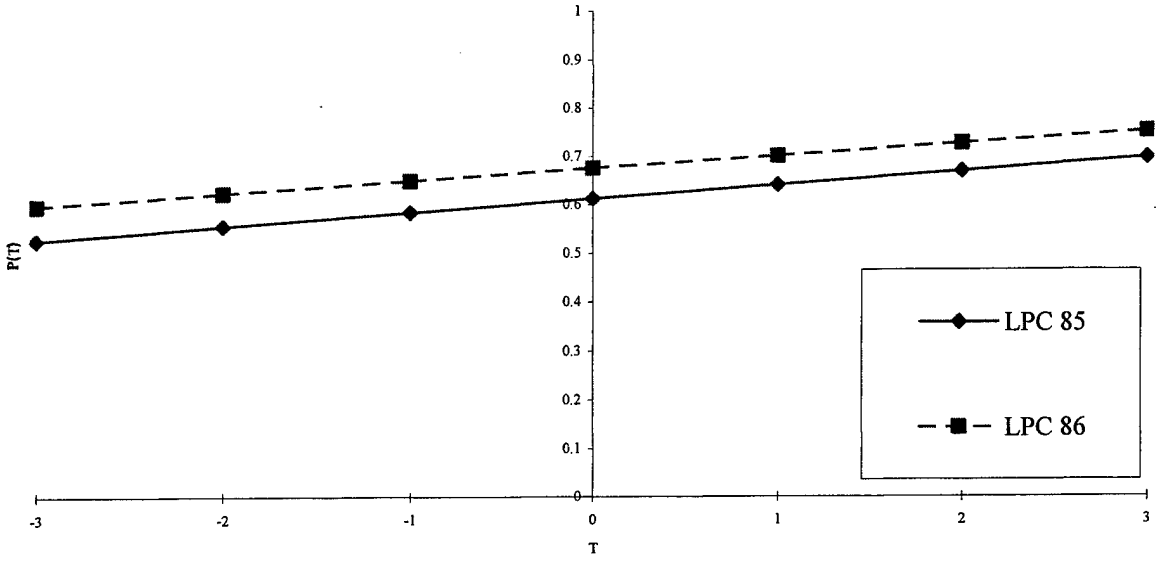
Item Number	a	b_1	b_2	b_3	b_4
LPC 85	0.13	-19.77	-7.20	-0.06	8.72
LPC 86	0.14	-23.80	-11.00	-2.00	7.14

Think of the person with whom you have worked least well during your years with your Service or agency. Using the following scales indicate the degree to which you would describe that person as

	1 2 3 4 5 6
LPC 85 Unenthusiastic	Enthusiastic
LPC 86 Pleasant	Unpleasant

The ICCs for these items are presented in Figure 44. For both items there is a slight increase over the values of T.

Figure 44
ICCs for Active versus Passive Behavior Items for SLEOCS



MEOCS-EEO

Method

At the time of these analyses there were 45,505 cases in the MEOCS-EEO database. Eliminating cases with missing data reduced the sample to 30,047. This reduced sample were reduced to two nearly equal subsamples (n_1= 15,024; n_2= 15,023).

Characteristics of the subset were as follows: Approximately 55 percent were in the Army, 17 percent in the Federal Civil Service, 14 percent in the Air Force, 11 percent in the Navy, 2 percent in the Coast Guard, and 1 percent in the Marine Corps. Civilian organizations comprised 57 percent of the subset, active-duty organizations 35 percent, reserve organizations 3 percent, and National Guard organizations 1 percent.

In terms of demographic information, the majority of respondents (62 percent) were male. More than half of the respondents (65 percent) were white, 17 percent African American, 8 percent Hispanic, 4 percent Asian American, 2 percent Native American, and 5 percent other or unknown. Education level was high with 16 percent possessing a high school diploma or less, 37 percent some college, 23 percent a college degree, and 25 percent graduate work. The respondents were older than other samples: 1 percent younger than 20, 8 percent age 20 to 25, 10 percent age 26 to 30, 29 percent age 31 to 40, 31 percent age 41 to 50, and 21 percent older than 51.

Previous work (Truhon, 1999) had analyzed the MEOCS-EEO into 16 clusters or scales: Sexual Harassment and Discrimination, Differential Command Behavior toward Minorities and Women, Positive EO Behavior, Racist/Sexist Behavior, Reverse Discrimination, Age Discrimination, Religious and Disabled Discriminatory Behavior, Institutional Discrimination, Positive Equal Employment Opportunity Attitudes, Traditional Attitudes about Men and Women, Trust in the Organization, Commitment, Effectiveness and Top Quality Programs, Work Group Cohesion, Leadership Cohesion, Job Satisfaction, and General EO Climate.

Results

Sexual Harassment and Discrimination

As can be seen in Table 44, the five items with best discrimination in the Sexual Harassment and Discrimination scale are: MEOCS 18, MEOCS 21, MEOCS 39, MEOCS 40, and MEOCS 41. These are the same five items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .82 and (the reduced scale) an internal consistency of .87 (Δ= .87 for all cases). The five items are listed below:

Table 44
Estimated Parameters for Sexual Harassment and Discrimination Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 15	1.51	-2.39	-1.65	-0.72	0.24
MEOCS 18	1.99	-2.26	-1.71	-0.98	-0.15
MEOCS 21	2.07	-2.36	-1.82	-1.07	-0.14
MEOCS 22	1.85	-2.21	-1.61	-0.97	-0.26
MEOCS 39	2.43	-2.18	-1.68	-1.02	-0.23
MEOCS 40	3.29	-2.26	-1.79	-1.19	-0.50
MEOCS 41	2.92	-1.95	-1.47	-0.86	-0.14

MEOCS 18 When a woman complained of sexual harassment to her superior, he told her, "You're being too sensitive."

MEOCS 21 A supervisor referred to women subordinates by their first names in public while using titles for men subordinates.

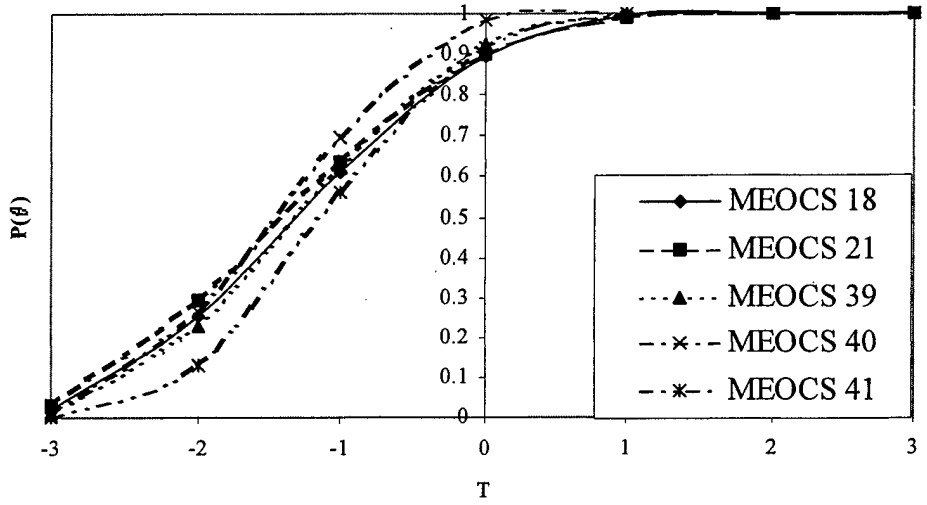
MEOCS 39 Men were usually called upon to speak first in meetings.

MEOCS 40 A qualified woman with small children was denied a promotion while a man with small children was given the promotion.

MEOCS 41 A woman was not treated as seriously as males regarding a career decision.

The ICCs for these items are presented in Figure 45. All ICCs are rapidly accelerating ogives.

Figure 45
ICCs for Sexual Harassment and Discrimination Items from MEOCS-EEO



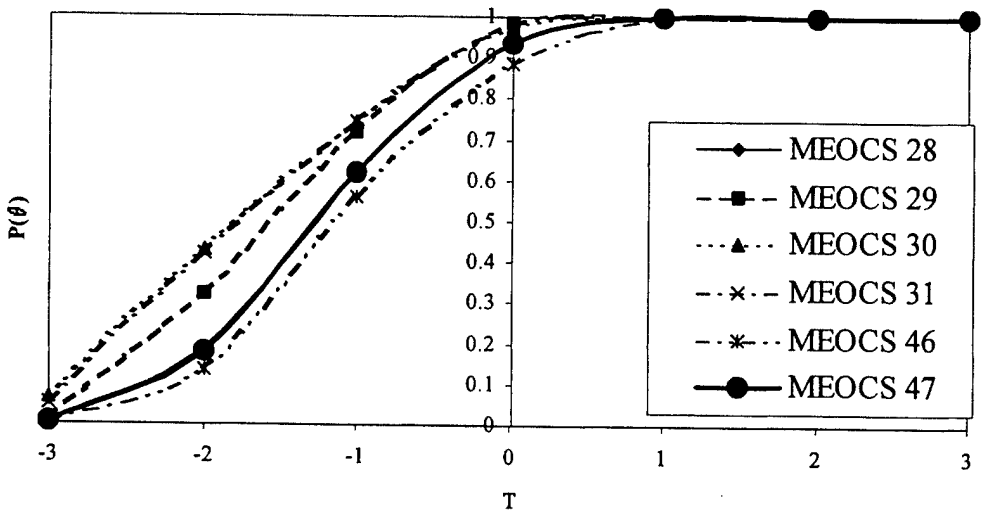
Differential Command Behavior toward Minorities and Women

As can be seen in Table 45, the six items in the Differential Command Behavior toward Minorities and Women scale with the highest discrimination are: MEOCS 28 MEOCS 29, MEOCS 30, MEOCS 31, MEOCS 46, and MEOCS 47. That matches four out of the five items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .86 and (the reduced scale) an internal consistency of .92 (Δ= .92 for all items). These six items are listed below:

Table 45
Estimated Parameters for Differential Command Behavior toward Minorities and Women Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 5	1.88	-2.33	-1.79	-1.05	-0.08
MEOCS 9	1.93	-2.04	-1.52	-0.73	0.17
MEOCS 11	2.26	-2.28	-1.83	-1.09	-0.22
MEOCS 12	2.13	-2.64	-2.13	-1.33	-0.53
MEOCS 13	2.22	-2.64	-2.14	-1.39	-0.51
MEOCS 27	2.39	-2.24	-1.76	-1.17	-0.35
MEOCS 28	2.59	-2.08	-1.62	-1.02	-0.25
MEOCS 29	3.24	-2.36	-1.92	-1.28	-0.50
MEOCS 30	2.63	-2.73	-2.18	-1.41	-0.52
MEOCS 31	2.59	-2.64	-2.16	-1.41	-0.55
MEOCS 46	2.63	-1.95	-1.49	-0.85	-0.06
MEOCS 47	2.90	-2.07	-1.60	-1.01	-0.23

Figure 46
ICCs for Differential Command Behavior toward Minorities and Women Items for MEOCS-EEO



MEOCS 28 A supervisor did not select a qualified subordinate for promotion because of the subordinate's race or ethnicity.

MEOCS 29 A member was assigned less desirable office space because of his/her racial or ethnic background.

MEOCS 30 While giving a lecture, the person in charge of the organization took more time to answer questions from one racial/ethnic group than from members of another racial/ethnic group.

MEOCS 31 The person in charge of the organization changed the duty assignments when it was discovered that two people of the same racial/ethnic group were assigned to the same sensitive areas on the same shift.

MEOCS 46 A majority worker was selected for a prestigious assignment over a minority worker who was equally, if not slightly better, qualified.

MEOCS 47 A minority worker was assigned less desirable job conditions (location, equipment, tasks, etc) than a majority worker.

The ICCs for these items are presented in Figure 46. All the ICCs are rapidly increasing ogives.

Positive EO Behavior

As can be seen in Table 46, of the six items in the Positive EO Behavior scale all except MEOCS 48 have strong discrimination indices. Those are the same items selected in my previous study. The scale has a marginal reliability of .83 and (the reduced scale) an internal consistency of .84 (Δ= .84 for all items). These five items are listed below:

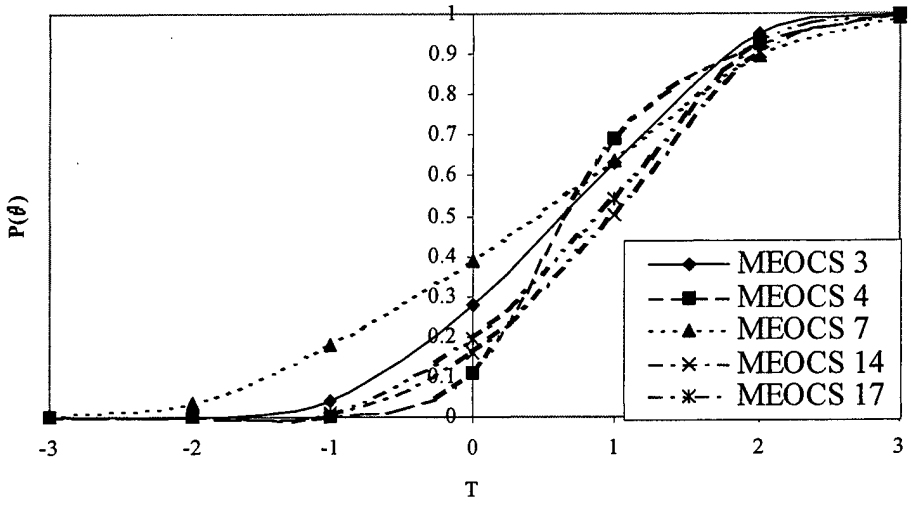
Table 46
Estimated Parameters for Positive EO Behavior Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 3	1.97	-0.45	0.32	1.02	1.52
MEOCS 4	2.82	0.07	0.75	1.33	1.78
MEOCS 7	1.45	-1.21	-0.03	1.03	1.71
MEOCS 14	2.56	-0.07	0.66	1.35	1.82
MEOCS 17	2.37	-0.18	0.56	1.24	1.71
MEOCS 48	0.71	-1.23	0.19	1.61	2.65

MEOCS 3 Majority and minority supervisors were seen having lunch together.
MEOCS 4 Majority and minority personnel were seen having lunch together.
MEOCS 7 A new minority person joined the organization and quickly developed close majority friends from within the organization.
MEOCS 14 Majority and minority members were seen socializing together.
MEOCS 17 Majority personnel joined minority friends at the same table in the cafeteria or designated eating area.

The ICCs for these items are presented in Figure 47. All the ICCs are gradually accelerating ogives.

Figure 47
ICCs for Positive EO Behaviors for MEOCS-EEO



Racist/Sexist Behavior

Table 47
Estimated Parameters for Racist/Sexist Behavior Items from the MEOCS-EEO using Samejima's Graded Response Model

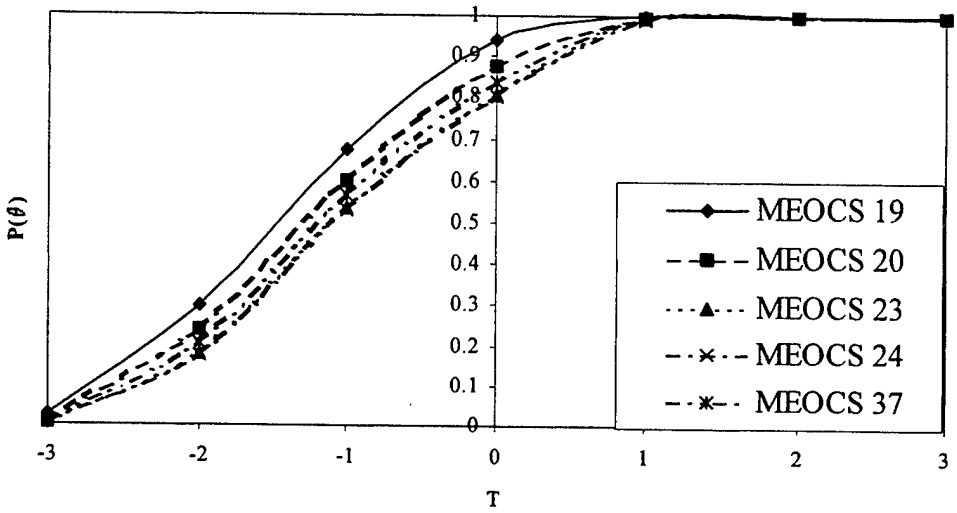
Item Number	a	b_1	b_2	b_3	b_4
MEOCS 1	1.48	-2.27	-1.61	-0.70	0.48
MEOCS 6	1.04	-3.80	-3.16	-2.41	-1.43
MEOCS 19	2.33	-2.38	-1.83	-1.19	-0.32
MEOCS 20	2.47	-2.25	-1.68	-0.95	-0.03
MEOCS 23	2.83	-2.11	-1.52	-0.74	0.23
MEOCS 24	2.58	-2.10	-1.47	-0.72	0.24
MEOCS 25	1.74	-2.29	-1.59	-0.79	0.12
MEOCS 26	1.93	-3.09	-2.55	-1.84	-0.95
MEOCS 33	1.57	-3.20	-2.66	-1.93	-0.99
MEOCS 37	2.38	-2.16	-1.58	-0.83	0.12
MEOCS 38	1.98	-2.73	-2.08	-1.32	-0.33
MEOCS 43	1.85	-2.51	-1.90	-1.16	-0.25

As can be seen in Table 47, all the items except for MEOCS 6 in the Racist/Sexist Behavior scale have strong discrimination indices. The five items with highest discriminability are: MEOCS 19, MEOCS 20, MEOCS 23, MEOCS 24, and MEOCS 37. These are the same five items selected in my previous study (Truhon, 1999). The

scale has a marginal reliability of .88 and (the reduced scale) an internal consistency of .90 (Δ= .90 for all cases). These five items are listed below:

MEOCS 19 Offensive racial/ethnic names were frequently heard.
MEOCS 20 Racial/ethnic jokes were frequently heard.
MEOCS 23 Jokes about women were frequently heard.
MEOCS 24 A man made off-color remarks about women.
MEOCS 37 Sexually oriented jokes and remarks were commonly heard in the workplace.

Figure 48
ICCs for Racist/Sexist Behavior Items for MEOCS-EEO



The ICCs for these items are presented in Figure 48. All ICCs are rapidly accelerating ogive curves.

Reverse Discrimination

There are only four items in the Reverse Discrimination scale (see Table 48). All items have good discrimination indices. The scale has a marginal reliability of .76 and an internal consistency of .76 (Δ= .76 for all cases). The four items are listed below:

Table 48
Estimated Parameters for Reverse Discrimination Items from the MEOCS-EEO using Samejima's Graded Response Model

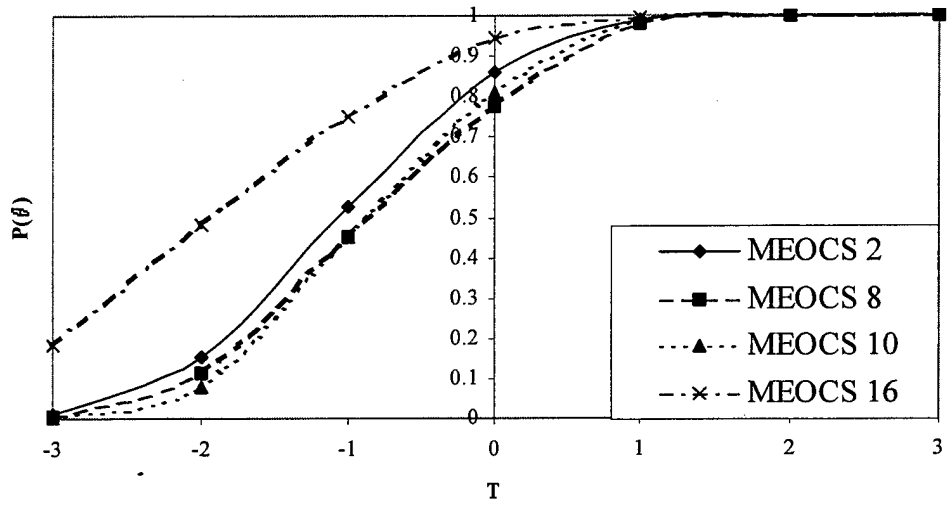
Item Number	a	b_1	b_2	b_3	b_4
MEOCS 2	1.95	-1.97	-1.39	-0.77	-0.04
MEOCS 8	2.28	-1.90	-1.26	-0.46	0.27
MEOCS 10	2.45	-1.77	-1.22	-0.55	0.16
MEOCS 16	1.47	-3.03	-2.43	-1.51	-0.59

MEOCS 2 The person in charge of the organization did not appoint a qualified majority in a key position, but instead appointed a less qualified minority.
MEOCS 8 A minority man was selected for a prestigious assignment over a majority man who was equally, if not slightly better, qualified.
MEOCS 10 A minority woman was selected to receive an award for an outstanding act even though she was not perceived by her peers as being as qualified as her nearest competitor, a majority man.

MEOCS 16 A majority and minority employee turned in similar pieces of equipment with similar problems. The minority person was given a new issue; the majority member's equipment was sent to maintenance for repair.

The ICCs for these items are presented in Figure 49. All are rapidly accelerating ogive curves, although the curve for item MEOCS 16 begins accelerating at very low levels of T (T < -3).

Figure 49
ICCs for Reverse Discrimination Items for MEOCS-EEO



Age Discrimination

As can be seen in Table 49, all the items from the Age Discrimination scale have high discrimination indices. The five with the highest discriminability are: MEOCS 34, EEO 89, EEO 90, EEO 91, and EEO 92. These are the same items selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .87 and (the reduced scale) an internal consistency of .89 (Δ= .89 for all cases), but if MEOCS 32 is removed the reliability increases to .90 (Δ= .90 for all cases). These five items are listed below:

Table 49
Estimated Parameters for Age Discrimination Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 32	1.62	-2.34	-1.64	-0.85	0.01
MEOCS 34	1.84	-2.25	-1.58	-0.85	0.03
MEOCS 42	1.72	-2.58	-1.94	-1.13	-0.25
EEO 89	2.47	-1.76	-0.95	-0.20	0.35
EEO 90	2.91	-1.76	-0.92	-0.23	0.40
EEO 91	3.25	-2.02	-1.30	-0.40	0.26
EEO 92	2.76	-2.05	-1.34	-0.37	0.24

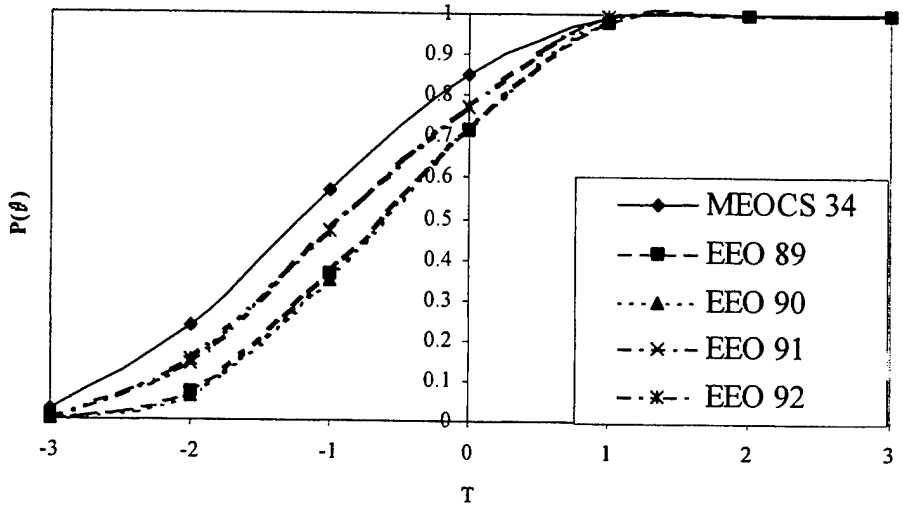
MEOCS 34 An older individual did not get the same career opportunities as did a younger individual.
EEO 89 In my organization older persons are discriminated against in hiring and promotions.
EEO 90 In my organization career-enhancing opportunities (such as training or professional development) are more available to younger members because of their age.

EEO 91 In my organization desirable additional duties are given to younger persons simply because of their age.

EEO 92 In my organization there are unfair age restrictions (favoring younger persons) in special assignments.

The ICCs for these items are presented in Figure 50. All ICCs are rapidly accelerating ogives.

Figure 50
ICCs for Age Discrimination Items for MEOCS-EEO



Religious/Disabled Discrimination

The five items in the Religious/Disabled Discrimination scale all have high discriminability indices (see Table 50). The scale has a marginal reliability of .75 and an internal consistency of .88 (Δ= .87 for all cases). These items are listed below:

Table 50
Estimated Parameters for Religious/Disabled Discrimination Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 35	2.83	-2.36	-1.94	-1.36	-0.63
MEOCS 36	2.81	-2.11	-1.69	-1.08	-0.33
MEOCS 44	2.54	-2.16	-1.68	-1.04	-0.26
MEOCS 45	3.29	-2.35	-1.93	-1.20	-0.45
MEOCS 49	2.91	-2.15	-1.72	-1.04	-0.30

MEOCS 35 A well-qualified person was denied a job because the supervisor did not like the religious beliefs of the person.

MEOCS 36 A worker with a disability was not given the same opportunities as other workers.

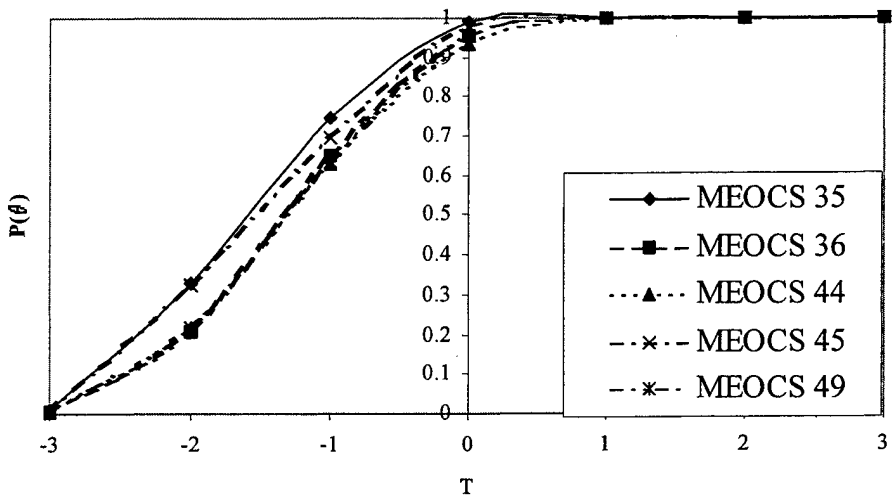
MEOCS 44 A supervisor favored a worker who had the same religious beliefs as the supervisor.

MEOCS 45 A career opportunity speech to a worker with a disability focused on the lack of opportunity elsewhere; to others, it emphasized promotion.

MEOCS 49 A supervisor did not appoint a qualified worker with a disability to a new position, but instead appointed another, less qualified worker.

The ICCs for these items are presented in Figure 51. All ICCs are rapidly accelerating ogives.

Figure 51
ICCs for Religious/Disabled Discrimination Items for MEOCS-EEO



Institutional Discrimination

There are only five items in the Institutional Discrimination scale, and all have high discrimination indices (see Table 51). The scale has a marginal reliability of .77 and an internal consistency of .78 (Δ= .78 for all cases), but if item EEO 99 is removed the reliability increases to .79 (Δ= .79 for all cases). These items are listed below:

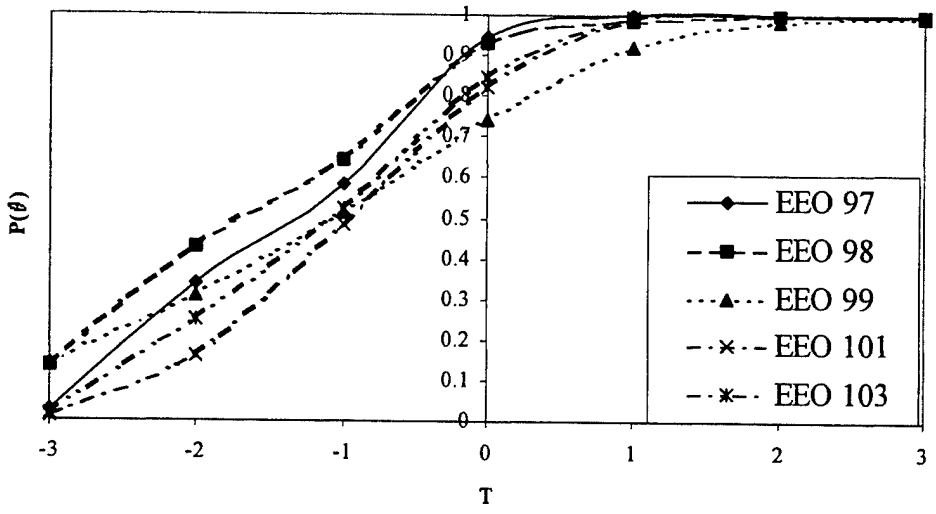
EEO 97 In my organization supervisors discriminate against people on the basis of religion.
EEO 98 In my organization workers with disabilities are expected to "hide" their disabilities.
EEO 99 In my organization holiday policies or practices favor certain religions.
EEO 101 In my organization people are treated differently because of their national origin (individual's or ancestor's country of origin).
EEO 103 In my organization supervisors favor particular national groups (e.g., not hiring or promoting individuals from specific countries).

Table 51
Estimated Parameters for Institutional Discrimination Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EEO 97	2.75	-2.50	-1.94	-0.82	-0.30
EEO 98	1.79	-2.89	-2.34	-0.93	-0.42
EEO 99	1.05	-2.91	-1.62	-0.35	0.30
EEO 101	2.11	-2.06	-1.34	-0.53	0.09
EEO 103	2.44	-2.29	-1.70	-0.55	0.02

The ICCs for these items are presented in Figure 52. All ICCs are ogives although the curve for item EEO 99 accelerates more slowly than the others.

Figure 52
ICCs for Institutional Discrimination for MEOCS-EEO



Positive Equal Employment Opportunity Behavior

There are only four items in the Positive Equal Employment Opportunity Behavior scale. Three of the items have strong discrimination indices (see Table 52). The scale has a marginal reliability of .78 and an internal consistency of .67 (Δ= .67 for all cases), but if item EEO 95 is removed the reliability (i.e., internal consistency) increases to .71 (Δ= .71 for all cases). These items are listed below:

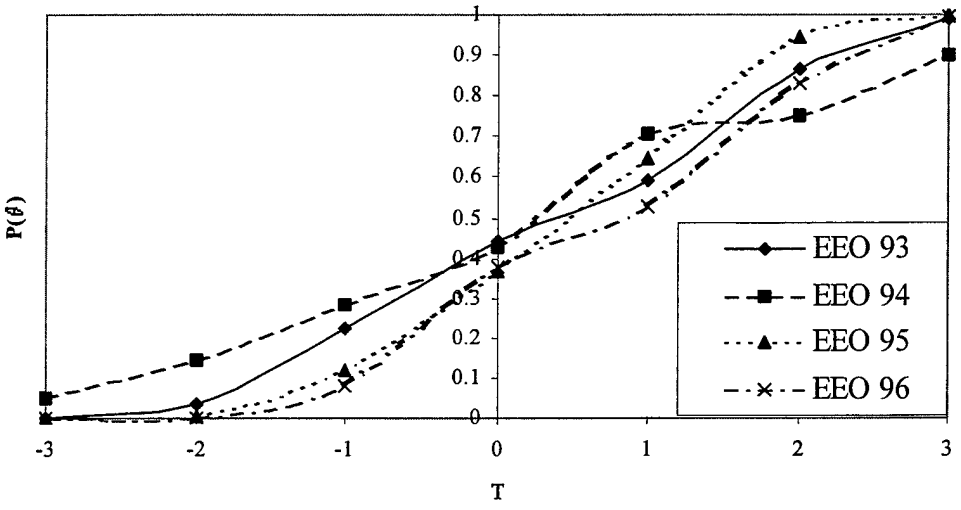
Table 52
Estimated Parameters for Positive Equal Employment Opportunity Behavior Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EEO 93	1.72	-1.35	-0.41	1.27	1.91
EEO 94	0.84	-1.92	-0.44	1.62	2.26
EEO 95	2.16	-0.95	0.03	0.98	1.61
EEO 96	2.26	-0.77	-0.06	1.57	2.01

EEO 93 In my organization a good effort is made to hire workers with disabilities.
EEO 94 In my organization supervisors make allowances for different religious beliefs and practices among personnel.
EEO 95 In my organization facilities are designed to accommodate workers with disabilities.
EEO 96 In my organization workers with disabilities are evaluated fairly (i.e., on the basis of their performance).

The ICCs for these items are presented in Figure 53. All the ICCs are ogives but the curve for item EEO 94 accelerates more slowly than the other items.

Figure 53
ICCs for Positive Equal Employment Opportunity Behaviors for MEOCS-EEO



Traditional Attitudes toward Women

There are only five items in the Traditional Attitudes toward Women scale. As can be seen in Table 53, four of the items have good discrimination indices. The scale has a marginal reliability of .73 and an internal consistency of .75 (Δ= .74 for all cases), but if item ATW 87 is removed the reliability increases to .80 (Δ= .79 for all cases). These items are presented below:

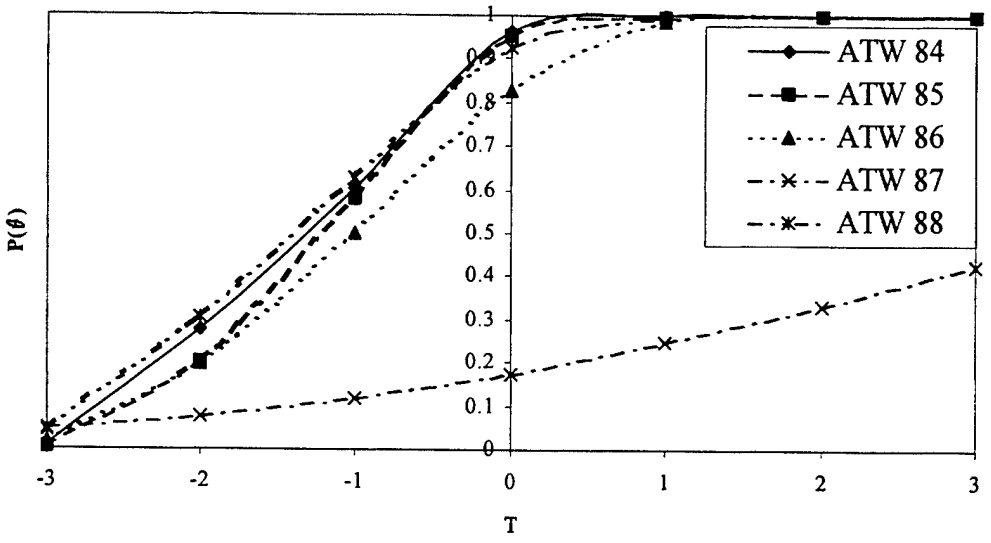
Table 53
Estimated Parameters for Traditional Attitude toward Women Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
ATW 84	2.88	-2.26	-1.85	-0.90	-0.36
ATW 85	2.64	-2.12	-1.64	-0.83	-0.37
ATW 86	1.89	-2.20	-1.38	-0.61	0.07
ATW 87	0.33	0.46	2.67	5.16	6.54
ATW 88	1.90	-2.43	-1.85	-0.95	-0.34

ATW 84 The intellectual leadership of a community should be largely in the hands of men.
ATW 85 In general, the father should have greater authority than the mother in the bringing up of children.
ATW 86 There are many jobs in which men should be given preference over women in being hired or promoted.
ATW 87 Women should assume their rightful place in business and all the professions along with men.
ATW 88 Women should worry less about their rights and more about becoming good wives and mothers.

The ICCs for these items are presented in Figure 54. Item ATW 87 does not discriminate well especially compared to the other items in the scale. All the other ICCs are rapidly accelerating ogives.

Figure 54
ICCs for Traditional Attitudes toward Women Items for MEOCS-EEO



Trust in the Organization

There are only four items in the Trust in the Organization scale. As can be seen in Table 54, three of the items have strong discrimination indices. The scale has a marginal reliability of .88 and an internal consistency of .83 (Δ= .82 for all cases), but if item TRUST 107 is removed the reliability increases to .85 (Δ= .84 for all cases). These items are listed below:

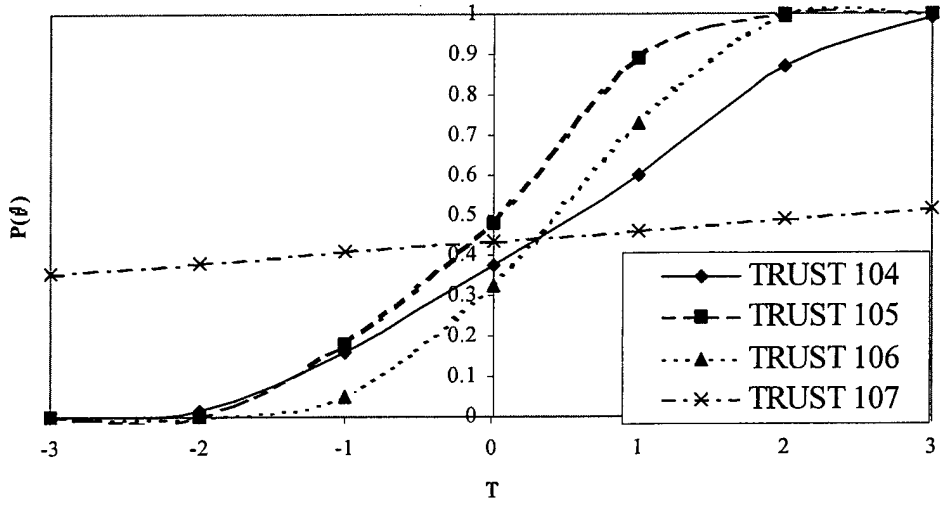
Table 54
Estimated Parameters for Trust in the Organization Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
TRUST 104	1.74	-1.11	-0.01	1.14	1.93
TRUST 105	4.67	-1.12	-0.27	0.45	0.97
TRUST 106	3.99	-0.79	0.13	0.76	1.36
TRUST 107	0.11	-11.06	-1.38	6.50	14.70

TRUST 104 The values of this organization reflect the values of its members.
TRUST 105 This organization is loyal to its members.
TRUST 106 This organization is proud of its people.
TRUST 107 This organization is more concerned about the "bottom line" than taking care of its people.

The ICCs for these items are presented in Figure 55. Except for item TRUST 107, all ICCs are gradually accelerating ogives.

Figure 55
ICCs for Trust in the Organization Items for MEOCS-EEo



Commitment

Four of the six items in the Commitment scale have high discrimination indices (COM 52, COM 53, COM 54, and COM 55; see Table 55). Of the other two items (COM 50 and COM 51) COM 50 has a slightly higher discriminability. Four of these five items match those selected in my previous study (Truhon, 1999). The scale has a marginal reliability of .81 and an internal consistency of .81 (Δ= .80 for all cases). These five items are listed below:

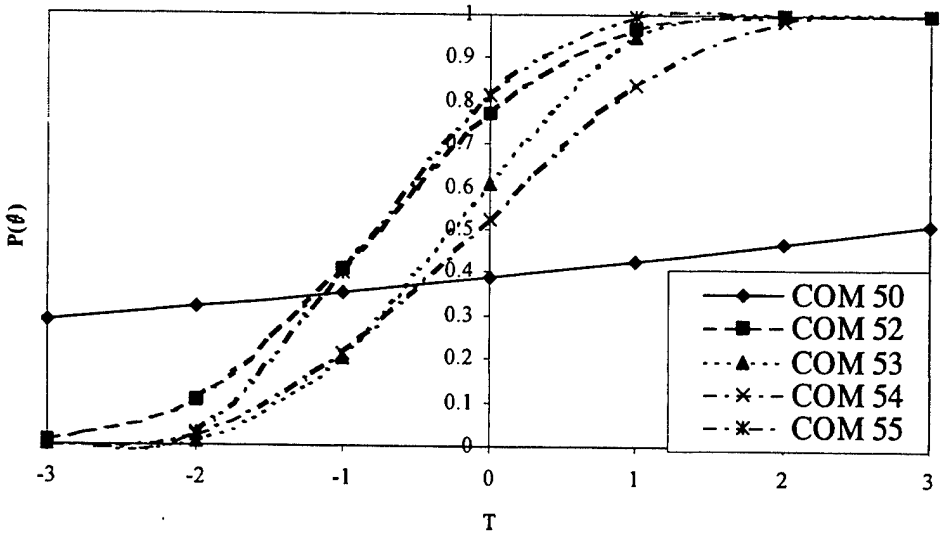
COM 50 I find that my values and the organization's values are very similar.
COM 52 I feel very little loyalty to this organization.
COM 53 There's not too much to be gained by sticking with this organization until retirement (assuming I could do so if I wanted to).
COM 54 Often, I find it difficult to agree with the politics of this organization on important matters relating to its people.
COM 55 Becoming part of this organization was definitely not in my best interests.

Table 55
Estimated Parameters for Commitment Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
COM 50	0.18	-8.14	1.00	5.33	10.54
COM 51	0.04	-11.94	12.32	33.73	52.08
COM 52	1.74	-1.77	-1.05	-0.45	0.21
COM 53	2.35	-1.14	-0.56	0.04	0.61
COM 55	1.91	-1.25	-0.41	0.28	1.08
COM 56	2.68	-1.53	-1.08	-0.44	0.11

The ICCs for these items are presented in Figure 56. As can be seen item COM 50 does not discriminate as well as the other items in the scale. All the other ICCs are rapidly accelerating ogives.

Figure 56
ICCs for Commitment Items for MEOCS-EEO



Effectiveness and Top Quality Programs

As can be seen in Table 56, the five items in the Effectiveness and Top Quality Programs scale with the highest discrimination indices are: EFF 56, EFF 57, EFF 58, EFF 60, and TQP 63. These items match those selected in my previous study (Truhon, 1999), noting that the item TQP 61 also has high discriminability. The scale has a marginal reliability of .86 and (the reduced scale) an internal consistency of .91 (Δ= .91 for all cases). These five items are presented below:

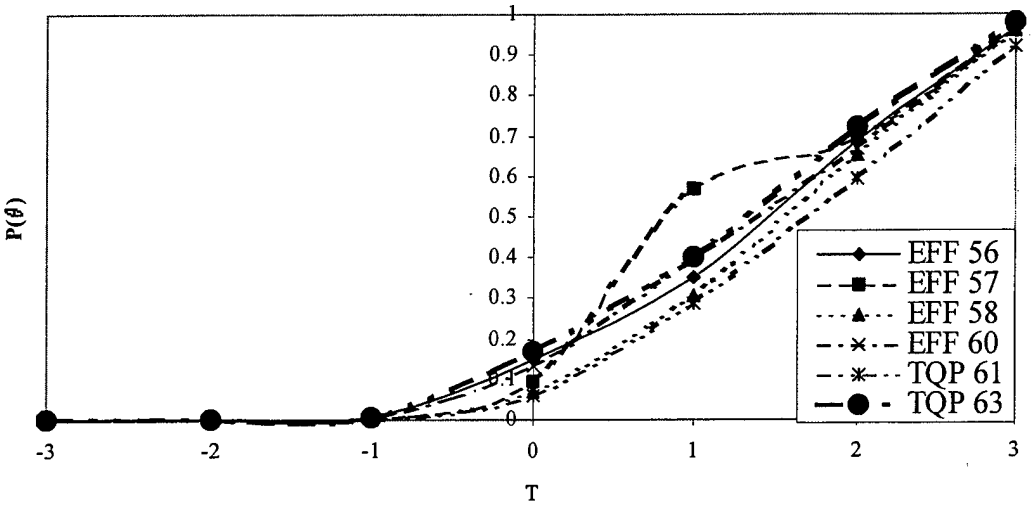
Table 56
Estimated Parameters for Effectiveness and Top Quality Program Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EFF 56	2.34	-0.09	1.13	1.82	2.54
EFF 57	2.92	0.10	1.17	1.81	2.53
EFF 58	2.45	0.23	1.26	1.89	2.58
EFF 59	2.16	-0.51	0.74	1.43	2.25
EFF 60	2.61	-0.01	0.94	1.89	2.58
TQP 61	2.30	0.31	1.36	2.10	2.76
TQP 62	1.20	-0.81	0.59	1.46	2.36
TQP 63	2.46	-0.16	0.94	1.74	2.42

EFF 56 The amount of output of my work group is very high.
EFF 57 The quality of output of my work group is very high.
EFF 58 When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.
EFF 60 My work group's performance in comparison to similar work groups is very high.
TQP 61 My work group is oriented toward satisfying our customers' needs (other units within my organization and other units outside my organization that my unit supports).
TQP 63 My work group strives toward continuous improvement in the quality of our work.

The ICCs for these items are presented in Figure 57. All the ICCs are gradually accelerating ogives.

Figure 57
ICCs for Effectiveness and Top Quality Programs Items for MEOCS-EEO



Work Group Cohesion

There are only four items in the Work Group Cohesion scale. As can be seen in Table 57, all items have very high discrimination indices. The scale has a marginal reliability of .85 and an internal consistency of .91 (Δ= .91 for all cases). The four items are presented below:

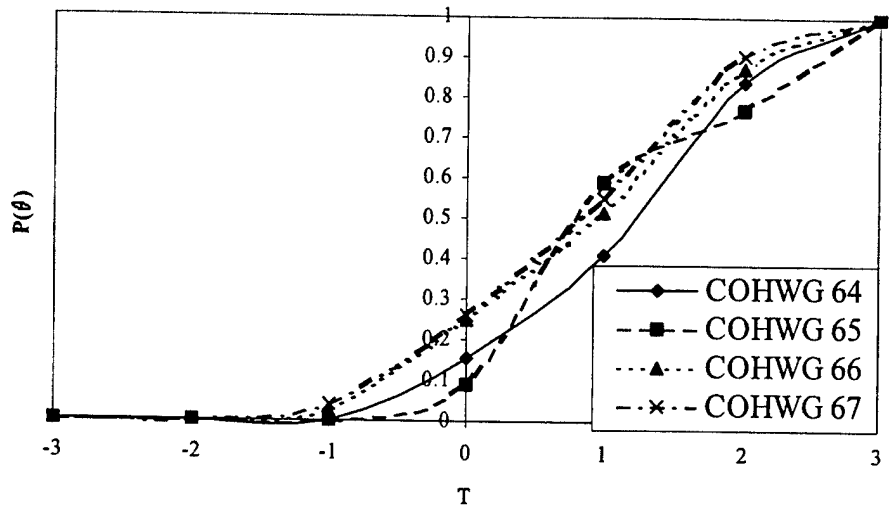
Table 57
Estimated Parameters for Work Group Cohesion Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
COHWG 64	3.88	-0.07	0.93	1.50	2.06
COHWG 65	3.91	0.09	1.08	1.62	2.26
COHWG 66	2.72	-0.52	0.55	1.36	1.96
COHWG 67	2.60	-0.61	0.48	1.23	1.86

COHWG 64 My work group works well as a team.
COHWG 65 Members of my work group pull together to get the job done.
COHWG 66 Members of my work group really care about each other.
COHWG 67 Members of my work group trust each other.

The ICCs for these items are presented in Figure 58. All the ICCs are gradually accelerating ogives.

Figure 58
ICCs for Work Group Cohesion Items for MEOCS-EEO



Leadership Cohesion

There are only four items in the Leadership Cohesion scale. As can be seen in Table 58, all items have very high discrimination indices. The scale has a marginal reliability of .91 and an internal consistency of .94 (Δ= .94 for all cases). These items are listed below:

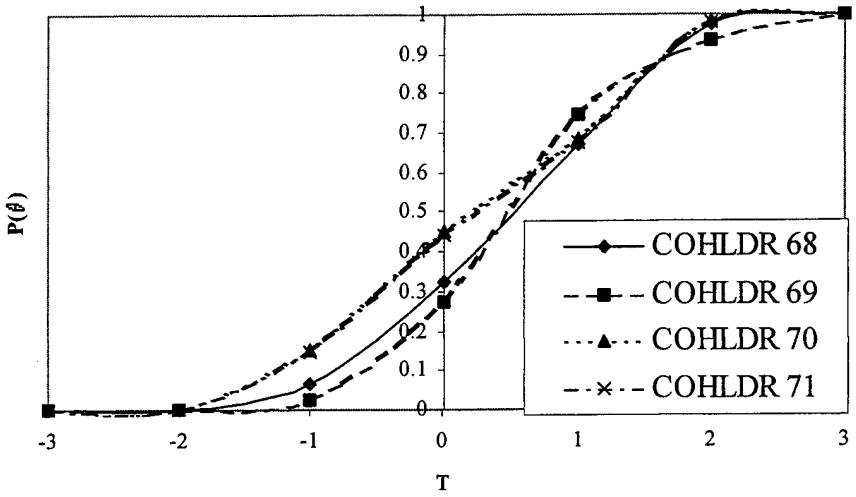
Table 58
Estimated Parameters for Leadership Cohesion Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
COHLDR 68	3.76	-0.84	0.13	0.89	1.64
COHLDR 69	3.74	-0.66	0.32	1.08	1.83
COHLDR 70	3.89	-1.07	-0.21	0.86	1.60
COHLDR 71	3.56	-1.06	-0.19	0.88	1.60

COHLDR 68 Top leaders in my organization work well together as a team.
COHLDR 69 Top leaders in my organization pull together to get the job done.
COHLDR 70 Top leaders in my organization really care about each other.
COHLDR 71 Top leaders in my organization trust each other.

The ICCs for these items are presented in Figure 59. All ICCs are gradually accelerating ogives.

Figure 59
ICCs for Leadership Cohesion Items for MEOCS-EEO



Job Satisfaction

The six items that comprise the Job Satisfaction scale all have good discrimination indices (see Table 59). The five items in this scale with the highest discrimination indices are: SAT 72, SAT 74, SAT 75, SAT 76, and SAT 77. The scale has a marginal reliability of .84 and (the reduced scale) an internal consistency of .80 (Δ= .80 for all cases). These five items are presented below:

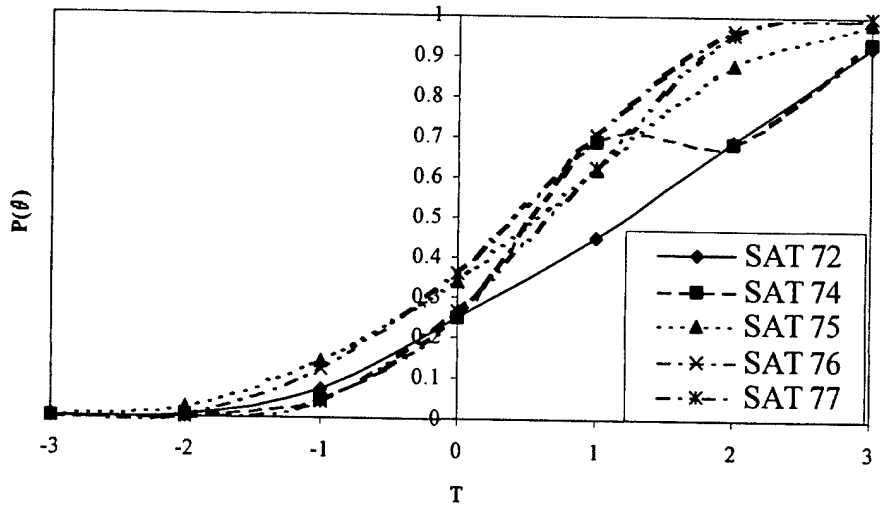
Table 59
Estimated Parameters for Job Satisfaction Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
SAT 72	1.64	-0.66	0.68	1.81	2.62
SAT 73	1.15	-0.70	0.80	1.81	3.03
SAT 74	1.70	-0.46	0.47	1.87	2.55
SAT 75	1.36	-1.00	0.28	1.00	1.76
SAT 76	2.10	-0.95	0.11	0.78	1.45
SAT 77	3.03	-0.69	0.45	0.99	1.69

Level of satisfaction with:
SAT 72 The chance to help people and improve their welfare through performance on my job
SAT 74 The recognition and pride my family has in the work I do
SAT 75 My job security
SAT 76 The chance to acquire valuable skills in my job that prepare for future opportunities
SAT 77 My job as a whole

The ICCs for these items are presented in Figure 60. All the ICCs are gradually accelerating ogives.

Figure 60
ICCs for Job Satisfaction Items for MEOCS-EEO



General EO Climate

As can be seen in Table 60, both items in the General EO Climate scale have high discrimination indices. The scale has a marginal reliability of .87 and internal consistency of .92 (Δ= .92 for all cases). Both items are presented below:

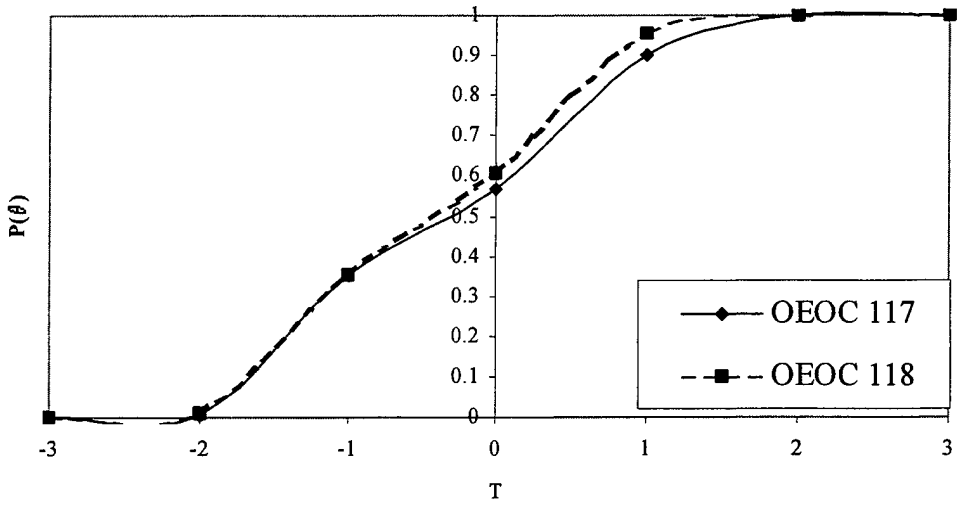
Table 60
Estimated Parameters for General EO Climate Items from the MEOCS-EEO using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
OEOC 117	5.17	-1.59	-0.96	0.11	0.95
OEOC 118	4.96	-1.61	-0.96	0.03	0.82

On a scale from 1 (very poor) to 5 (very good):
OEOC 117 Most people would rate the equal opportunity climate in this organization.
OEOC 118 I personally would rate the equal opportunity climate in this organization.

The ICCs for both items are presented in Figure 61. Both ICCs are rapidly accelerating ogives.

Figure 61
ICCs for General EO Climate Items for MEOCS-EEO



SUEOCS

Method

At the time of these analyses there were 5,474 cases in the SUEOCS database. Removing cases with missing data reduced the database to 4,641, of which 2,321 were used for these analyses. Because of the large number of missing values on these variables, data on the age and branch of military service are not reported. Active-duty military organizations comprised 74 percent of the sample, reserve organizations 22 percent, civilian organizations 1 percent, and National Guard less than 1 percent.

In terms of demographic information, the vast majority of the respondents (82 percent) were males. More than half of the respondents (70 percent) were white, 14 percent African American, 8 percent Hispanic, 4 percent Asian American, and 2 percent Native American. Education level was high with 1 percent possessing a high school diploma or less, 62 percent some college, 23 percent a college degree, and 14 percent a master's degree.

Previous work (Truhon, 1999) had analyzed the SUEOCS into 13 clusters or scales: Personal Sexist Attitudes and Beliefs, Reverse Discrimination, Differential Command Behavior toward Minorities and Women, Racist Attitudes in the Unit, Personal Attitudes toward Equal Opportunity, Racist/Sexist Behavior, Acceptance of Diversity, Personal Feelings regarding Verbal Abuse of Women and Minorities, Positive EO Behavior, General EO Climate, Perceived Work Group Effectiveness, Commitment, and Job Satisfaction.

Personal Sexist Attitudes and Beliefs

There are only five items in the Personal Sexist Attitudes and Beliefs scale. As can be seen in Table 61, the items have good discrimination indices. The scale has a marginal reliability of .74 and an internal consistency of .77 (Δ= .77 for all cases). These items are presented below:

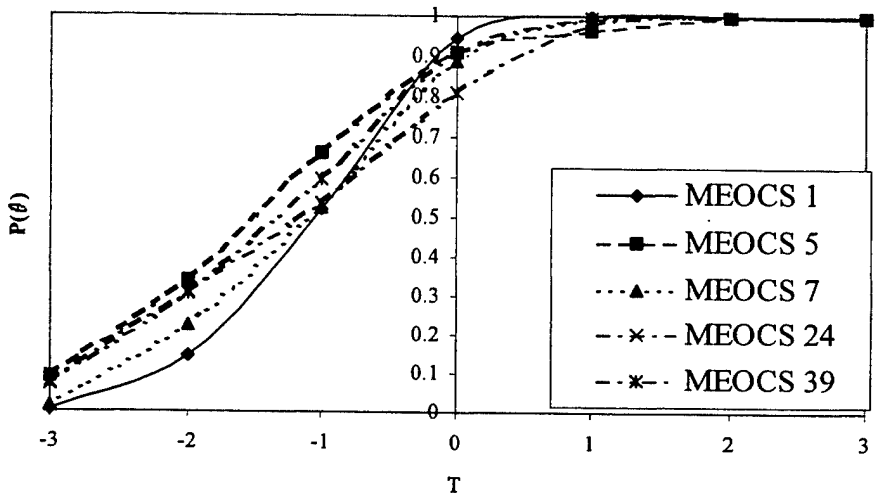
MEOCS 1	The Service would be better off if it were an all-male Service.
MEOCS 5	You can't expect men and women to work together as equals at this unit.
MEOCS 7	I believe my Service was more efficient before women were allowed to join.
MEOCS 24	Women of average skill assigned to this unit do not (would not) perform as well as men of average skill.
MEOCS 39	Women in the Service cannot possibly do the job as well as men.

Table 61
Estimated Parameters for Personal Sexism Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 1	2.49	-2.01	-1.34	-0.70	-0.37
MEOCS 5	1.32	-2.56	-1.86	-1.12	-0.46
MEOCS 7	2.17	-2.22	-1.62	-0.55	-0.20
MEOCS 24	1.58	-2.59	-1.84	-0.45	0.03
MEOCS 39	2.01	-2.69	-1.73	-0.86	-0.25

The ICCs for these items are presented in Figure 62. All the ICCs are rapidly accelerating ogives.

Figure 62
ICCs for Personal Sexism Items for SUEOCS



Reverse Discrimination

As can be seen in Table 62, most of the items in the Reverse Discrimination scale have good discrimination indices. The five items with the highest discriminability are: MEOCS 4, MEOCS 8, MEOCS 11, MEOCS 38, and MEOCS 61. These are the same items selected in my previous study (Truhon, 1999). This scale has a marginal reliability of .81 and (the reduced scale) an internal consistency of .75 (Δ= .75 for all cases). These items are presented below.

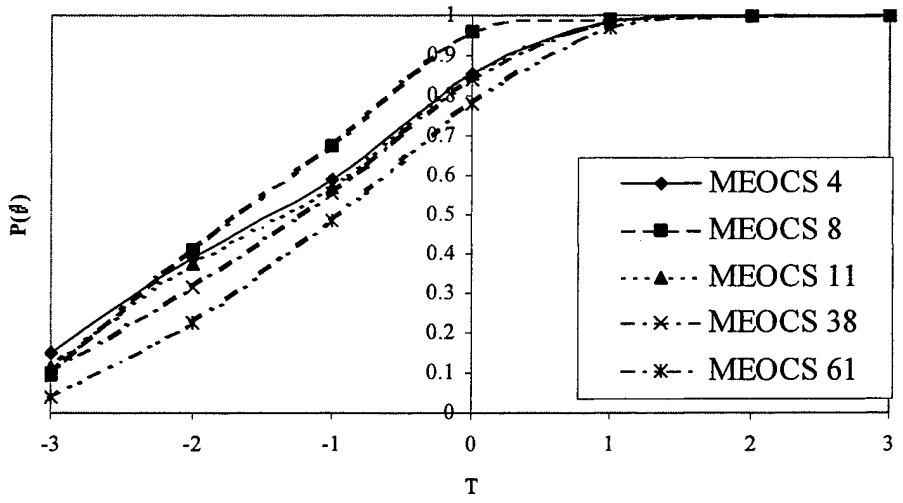
MEOCS 4	Minorities or women assigned here get (would get) the best duties and assignments.
MEOCS 8	A minority member is (would be) likely to get more desirable office space than a majority member.
MEOCS 11	Majority personnel at this unit are not (would not be) chosen for a desirable assignment if a minority person (of similar qualifications) is available.
MEOCS 38	When I learn of a woman getting an award or recognition, I always wonder whether she deserved it.
MEOCS 61	Supervisors are (would be) more likely to give the undesirable additional duties to men than to women.

Table 62
Estimated Parameters for Reverse Discrimination Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 2	0.64	-4.37	-2.68	-1.43	-0.64
MEOCS 4	1.54	-2.99	-2.15	-0.72	-0.08
MEOCS 8	2.02	-2.77	-2.20	-1.04	-0.57
MEOCS 11	1.64	-2.83	-2.09	-0.63	-0.09
MEOCS 26	1.14	-2.17	-0.44	0.67	1.52
MEOCS 38	1.59	-2.81	-1.73	-0.66	-0.03
MEOCS 40	1.06	-3.79	-2.26	-0.61	0.64
MEOCS 50	1.39	-3.02	-2.07	-0.60	0.13
MEOCS 61	1.65	-2.36	-1.40	-0.43	0.18
MEOCS 66	1.12	-3.26	-2.01	-0.73	0.22

The ICCs for these items are presented in Figure 63. All ICCs are rapidly accelerating ogives.

Figure 63
ICCs for Reverse Discrimination Items for SUEOCS



Differential Command Behavior toward Minorities and Women

All nine items in the Differential Command Behavior toward Minorities and Women scale have strong discrimination indices (see Table 63). The five items with the highest discriminability are MEOCS 34, MEOCS 35, MEOCS 47, MEOCS 55, and MEOCS 67. These are the same items selected in my previous study (Truhon, 1999). This scale has a marginal reliability of .79 and (the reduced scale) an internal consistency of .84 (Δ= .83 for all cases). These items are presented below:

MEOCS 34 I believe that supervisors in my unit reprimand (would reprimand) women subordinates more often than men subordinates.

MEOCS 35 At my unit, it is likely that women are (would be) overlooked for promotions solely because they are women.

MEOCS 47 Majority supervisors at my unit are (would be) likely to reprimand minority subordinates much more often than majority subordinates.

MEOCS 55 It is likely that a supervisor at my unit would give a female subordinate a severe punishment for a minor infraction, while a male subordinate who committed the same offense would be given a less severe penalty.

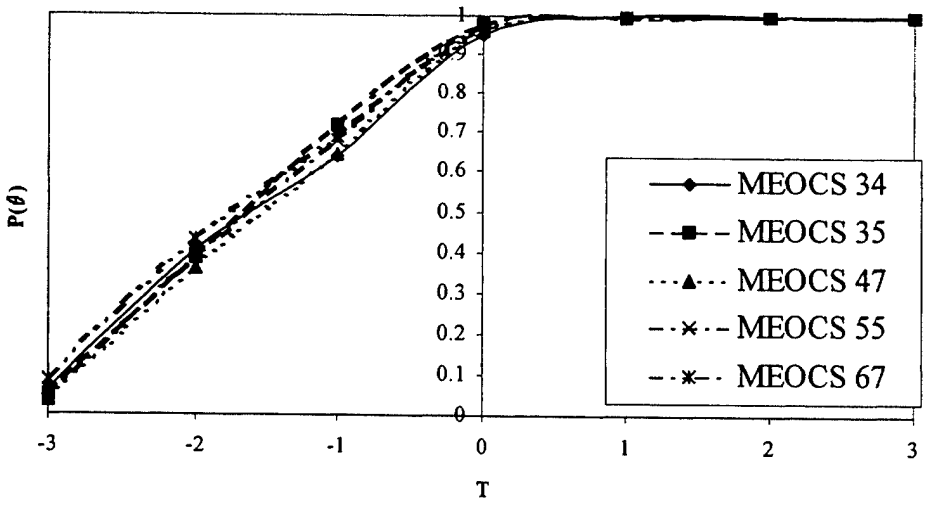
MEOCS 67 At my unit, it is likely that some female first-level supervisors are (would be) denied the opportunity for professional education solely because they are women.

Table 63
Estimated Parameters for Differential Command Behavior toward Minorities and Women Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 17	1.54	-3.23	-2.59	-0.81	-0.22
MEOCS 19	1.89	-2.51	-2.03	-1.02	-0.61
MEOCS 27	1.75	-3.01	-2.52	-0.99	-0.49
MEOCS 34	2.32	-2.66	-2.16	-0.97	-0.40
MEOCS 35	2.29	-2.54	-2.10	-1.17	-0.67
MEOCS 45	1.63	-3.11	-2.52	-1.16	-0.64
MEOCS 47	2.50	-2.52	-2.01	-1.00	-0.43
MEOCS 55	2.62	-2.58	-2.07	-1.09	-0.53
MEOCS 67	2.14	-2.73	-2.28	-1.10	-0.54

The ICCs for these items are presented in Figure 64. All the ICCs are rapidly accelerating ogives.

Figure 64
ICCs for Differential Command Behavior toward Minorities and Women Items for SUEOCS



Racist Attitudes in the Unit

There are only four items in the Racist Attitudes in the Unit scale, but they all have good discrimination indices (see Table 64). The scale has a marginal reliability of .67 and an internal consistency of .74 (Δ= .75 for all cases). These items are presented below:

MEOCS 15 Members of my unit believe that the unit's performance would go down if more minorities were to be stationed there.

MEOCS 21 Most people at my unit believe we would better accomplish our mission if everyone stationed here is of the same race.

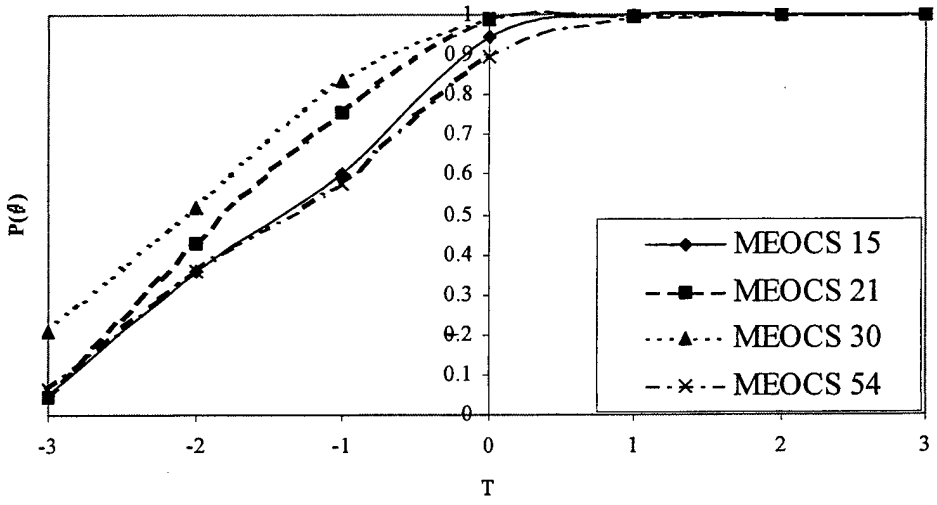
MEOCS 30 My unit will (would) better accomplish its mission if everyone stationed here is of the same race.
MEOCS 54 Members of my unit believe that if more minorities were to be stationed here, the unit's effectiveness would suffer.

Table 64
Estimated Parameters for Racist Attitudes in the Unit Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 15	2.33	-2.60	-2.00	-0.85	-0.39
MEOCS 21	2.65	-2.60	-2.22	-1.25	-0.79
MEOCS 30	1.97	-3.08	-2.68	-1.49	-1.01
MEOCS 54	2.07	-2.64	-2.01	-0.73	-0.19

The ICCs for these items are presented in Figure 65. All the ICCs are rapidly accelerating ogives.

Figure 65
ICCs for Racist Attitudes in the Unit Items for SUEOCS



Personal Attitudes toward EO

Seven of the ten items in the Personal Attitudes toward EO Items have good discrimination indices (see Table 65). The five items with the highest discrimination are: MEOCS 16, MEOCS 29, MEOCS 31, MEOCS 33, and MEOCS 37. These are the same items selected in my previous study (Truhon, 1999). This scale has a marginal reliability of .87 and an internal consistency of .83 (Δ= .83 for all cases). These items are listed below:

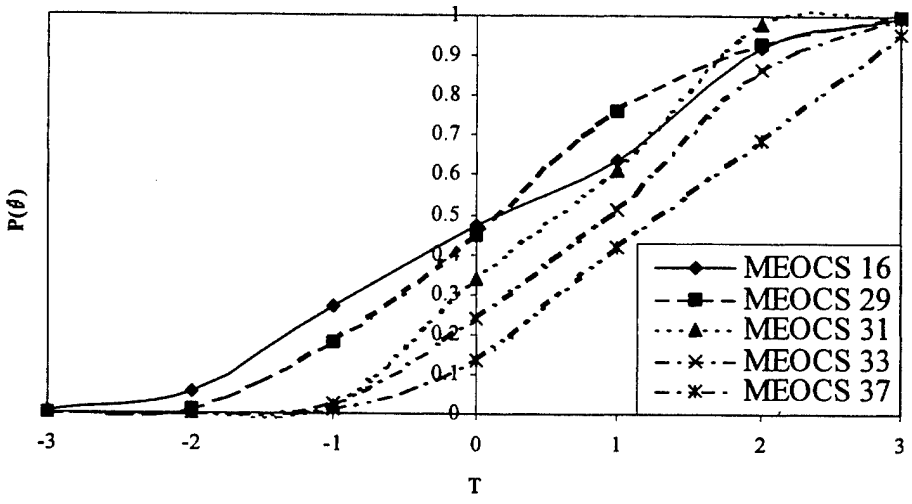
MEOCS 16 The equal opportunity effort has improved the working environment here.
MEOCS 29 The unit is better able to carry out its duties because of the equal opportunity programs it has conducted.
MEOCS 31 Equal opportunity programs are important to the future of this unit.
MEOCS 33 I believe that my unit should continue to support equal opportunity training.
MEOCS 37 Members of my unit socialize with (would socialize with) members of a race other than their own when they are stationed together.

Table 65
Estimated Parameters for Personal Attitudes toward EO Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 3	1.48	-1.59	-0.51	0.92	1.70
MEOCS 9	1.30	-1.49	-0.67	0.64	1.15
MEOCS 16	1.82	-1.56	-0.59	1.09	1.66
MEOCS 29	2.16	-1.14	-0.36	1.20	1.66
MEOCS 31	3.03	-0.54	0.08	1.09	1.49
MEOCS 32	0.03	-62.13	-30.03	15.67	37.26
MEOCS 33	2.19	-0.39	0.48	1.48	1.90
MEOCS 37	1.82	0.07	0.78	1.91	2.44
MEOCS 44	0.04	-58.44	-33.44	6.32	27.45
MEOCS 60	0.05	-49.93	-33.12	2.12	18.00

The ICCs for these items are presented in Figure 66. All the ICCs are slowly accelerating ogives.

Figure 66
ICCs for Personal Attitudes toward EO Items for SUEOCS



Racist/Sexist Behavior

Of the seven items in the Racist/Sexist Behavior scale, only three items have good discrimination indices (see Table 66). The four items with the highest discriminability are MEOCS 40, MEOCS 41, MEOCS 46, and MEOCS 46. Only the three highest items match those selected in my previous study. This scale has a marginal reliability of .77 and (the reduced scale) an internal consistency of .69 (Δ= .69 for all cases), but increases to .74 (Δ= .74 for all cases), if item MEOCS 40 is removed. These items are listed below.

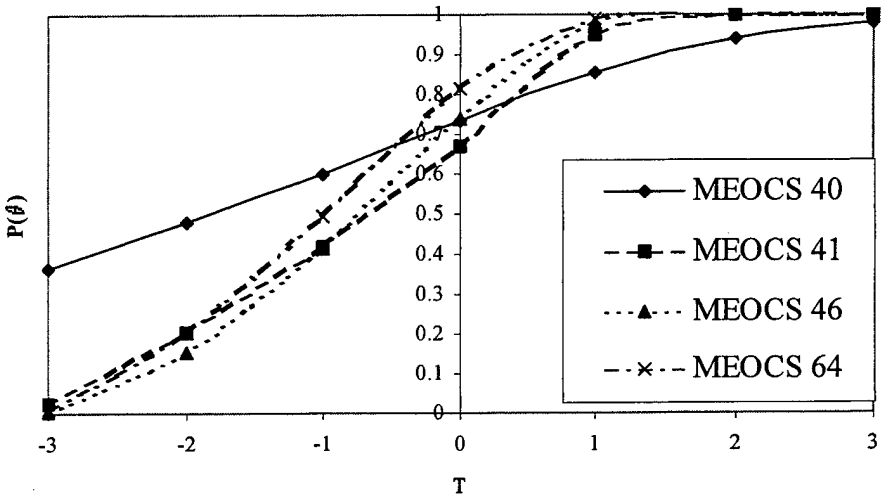
MEOCS 40	Women who complain of sexual harassment are simply being too sensitive.
MEOCS 41	Members of my unit are amused by the telling of jokes about certain races or ethnic groups.
MEOCS 46	Members of this unit are likely to make off-color remarks about members of the opposite sex.
MEOCS 64	Majority personnel at this unit are likely to make off-color remarks about minorities.

Table 66
Estimated Parameters for Racist/Sexist Behavior Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 12	0.03	-71.61	-32.03	20.17	55.25
MEOCS 40	0.74	-5.04	-2.91	-0.72	0.88
MEOCS 41	2.03	-2.36	-1.16	-0.08	0.53
MEOCS 42	0.03	-28.21	-2.19	40.65	72.26
MEOCS 46	2.30	-2.08	-1.12	-0.30	0.35
MEOCS 59	0.03	-35.69	-4.06	40.51	75.75
MEOCS 64	2.32	-2.23	-1.44	-0.51	0.13

The ICCs for these items are presented in Figure 67. All the ICCs except the one for item MEOCS 40 are rapidly accelerating ogives.

Figure 67
ICCs for Racist/Sexist Behaviors Items for SUEOCS



Acceptance of Diversity

There are only five items in the Acceptance of Diversity scale. As can be seen in Table 67, four of the items have good discrimination indices. The scale has a marginal reliability of .71 and an internal consistency of .67 (Δ= .67 for all cases). These items are listed below:

Table 67
Estimated Parameters for Acceptance of Diversity Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 23	1.80	0.15	0.91	1.78	2.14
MEOCS 51	1.30	-0.87	0.20	2.02	2.61
MEOCS 53	2.37	0.29	0.96	1.86	2.15
MEOCS 58	1.31	-0.70	0.49	2.12	2.87
MEOCS 65	0.44	-6.46	-5.33	-2.94	-1.68

MEOCS 23 Members of my unit welcome (would welcome) the chance to attend special events such as organizational parties, picnics, and ceremonies that are attended by both majority and minority personnel from my Service.

MEOCS 51 Members of my unit value racial/ethnic/gender diversity.

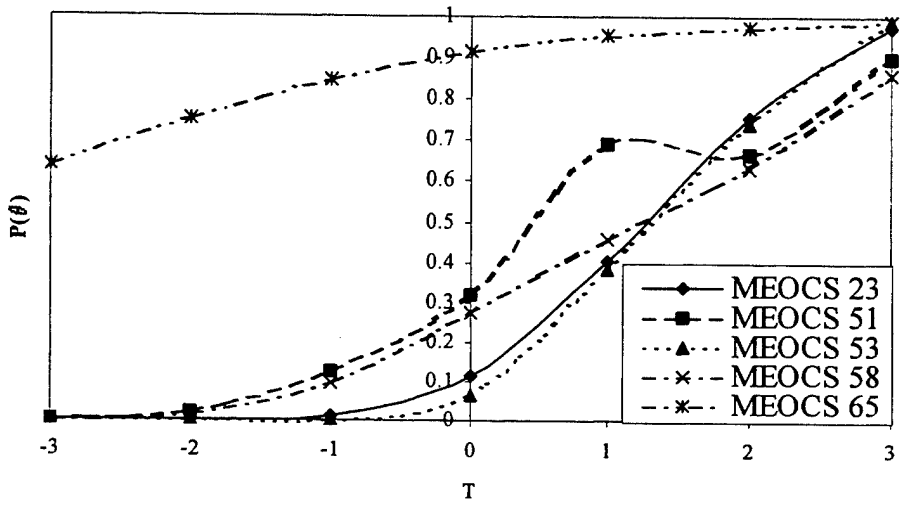
MEOCS 53. I welcome (would welcome) the chance to attend special events such as organizational parties, picnics, and ceremonies attended by majority and minority personnel from my Service.

MEOCS 58 Minority persons in my unit easily develop (would easily develop) close majority friends from within the unit.

MEOCS 65 Given the choice, I would prefer not to work closely with minorities.

The ICCs for these items are presented in Figure 68. All the ICCs are gradually accelerating ogives but the curve for item MEOCS 65 does not show much discriminability across the range of Ts

Figure 68
ICCs for Acceptance of Diversity Items for SUEOCS



Personal Feelings regarding Verbal Abuse of Women and Minorities

Of the six items in the Personal Feelings regarding Verbal Abuse of Women and Minorities scale, three of the items have high discrimination indices (see Table 68). The other three items are low. The scale has a marginal reliability of .70 and an internal consistency of .78 (Δ= .78 for all cases). All the items are listed below:

Table 68
Estimated Parameters for Personal Feelings regarding Verbal Abuse of Women and Minorities Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
MEOCS 13	2.05	-2.29	-1.45	-0.30	0.19
MEOCS 14	2.01	-2.43	-1.79	-1.14	-0.63
MEOCS 22	0.03	-7.55	12.45	38.03	58.69
MEOCS 28	0.39	1.30	2.79	4.71	5.89
MEOCS 52	0.02	-10.90	15.90	60.71	90.73
MEOCS 57	2.41	-2.31	-1.54	-0.48	-0.02

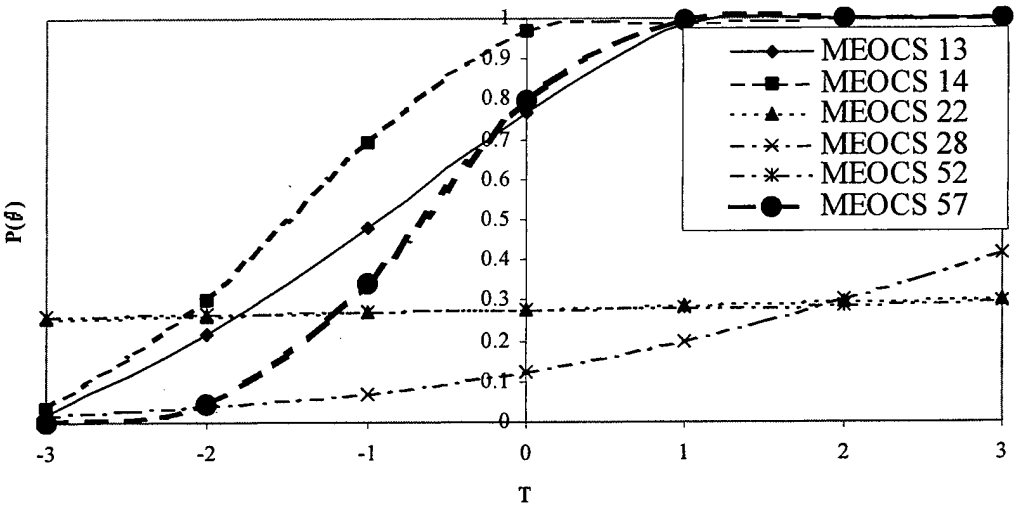
MEOCS 13 I enjoy (would enjoy) hearing personnel from my unit tell jokes that make fun of the opposite sex.

MEOCS 14 There is nothing wrong with using offensive racial/ethnic names so long as no one at the unit is bothered by the remarks.

MEOCS 22 I am offended when individuals use racial or ethnic slurs at my unit.
MEOCS 28 I disapprove of the use of racial slurs to refer to members of other organizations.
MEOCS 52 I dislike it when jokes about minorities are told at my unit.
MEOCS 57 I am amused when people from my unit engage in the telling of jokes about certain races or ethnic groups.

The ICCs for these items are presented in Figure 69. The ICCs for items MEOCS 13, MEOCS 14, and MEOCS are rapidly accelerating ogives; the ICC for item MEOCS 28 slowly accelerates, while the ICCs for items MEOCS 22 and MEOCS 52 are flat lines.

Figure 69
ICCs for Personal Feelings regarding Verbal Abuse of Minorities and Women Items for SUEOCS



Positive EO Behavior

As can be seen in Table 69, all six items in the Positive EO Behavior scale have good discrimination indices. The five items with the highest discriminability are: MEOCS 18, MEOCS 25, MEOCS 48, MEOCS 56, and MEOCS 62. These are the same items selected in my previous study (Truhon, 1999). This scale has a marginal reliability of .73 and (the reduced scale) an internal consistency of .70 (Δ= .70 for all cases). These items are presented below:

Table 69
Estimated Parameters for Positive EO Behavior Items for the SUEOCS using Samejima's Graded Response Model

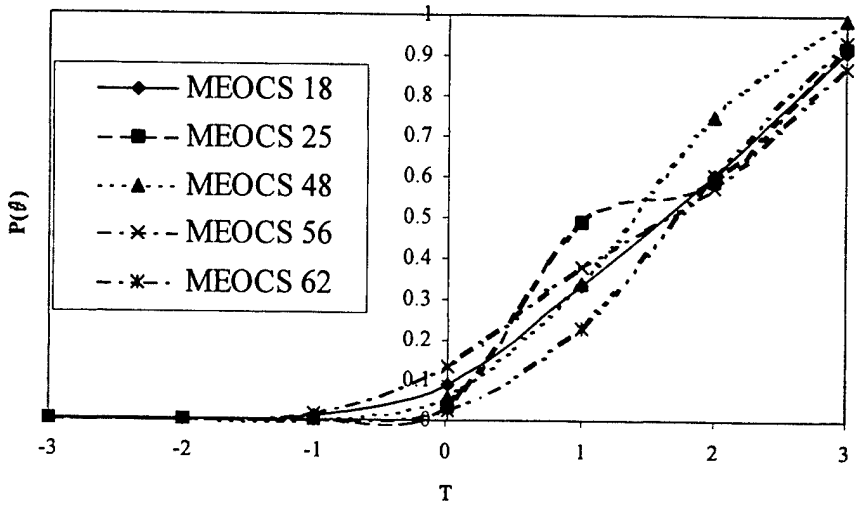
Item Number	a	b_1	b_2	b_3	b_4
MEOCS 18	1.57	0.32	1.09	2.29	2.53
MEOCS 25	1.71	0.68	1.32	2.25	2.53
MEOCS 36	1.32	-0.11	0.89	2.08	2.57
MEOCS 48	2.23	0.33	1.14	1.83	2.12
MEOCS 56	1.62	0.05	0.91	2.40	2.77
MEOCS 62	1.71	0.80	1.42	2.15	2.44

MEOCS 18 I attempt (would attempt) to make minorities feel accepted and part of this unit.
MEOCS 25 I am (would be) open to developing a close friendship in my unit with a person of a race different from my own.

MEOCS 48 I socialize (would socialize) with members of a race different from my own when we are stationed together.
MEOCS 56 I try (would try) to make minority individuals and women feel comfortable at my unit.
MEOCS 62 The idea of having a supervisor whose race is different from my own does not bother me.

The ICCs for these items are presented in Figure 70. All the ICCs are gradually accelerating ogives.

Figure 70
ICCs for Positive EO Behavior Items for SUEOCS



General EO Climate

There are only two items in the General EO Climate scale, but both items have strong discriminability indices (see Table 70). The scale has a marginal reliability of .85 and an internal consistency of .92 (Δ= .91 for all cases). These items are presented below:

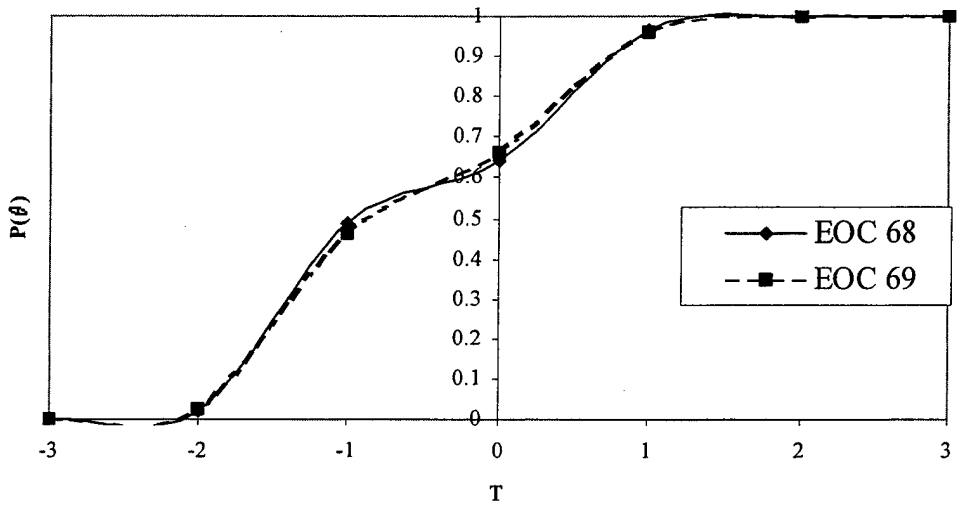
Table 70
Estimated Parameters for General EO Climate Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
EOC 68	5.77	-1.75	-1.32	-0.03	0.81
EOC 69	4.50	-1.71	-1.23	-0.08	0.79

On a scale from 1 (very poor) to 5 (very good):
EOC 68 Most people would rate the equal opportunity climate in this organization.
EOC 69 I personally would rate the equal opportunity climate in this organization.

The ICCs for these items are presented in Figure 71. Both ICCs are rapidly accelerating ogives.

Figure 71
ICCs for General EO Climate for SUEOCS



Perceived Work Group Effectiveness

There are only five items in the Perceived Work Group Effectiveness scale but they all have very good discrimination indices (see Table 71). The scale has a marginal reliability of .81 and an internal consistency of .87 (Δ= .87 for all cases). These items are presented below:

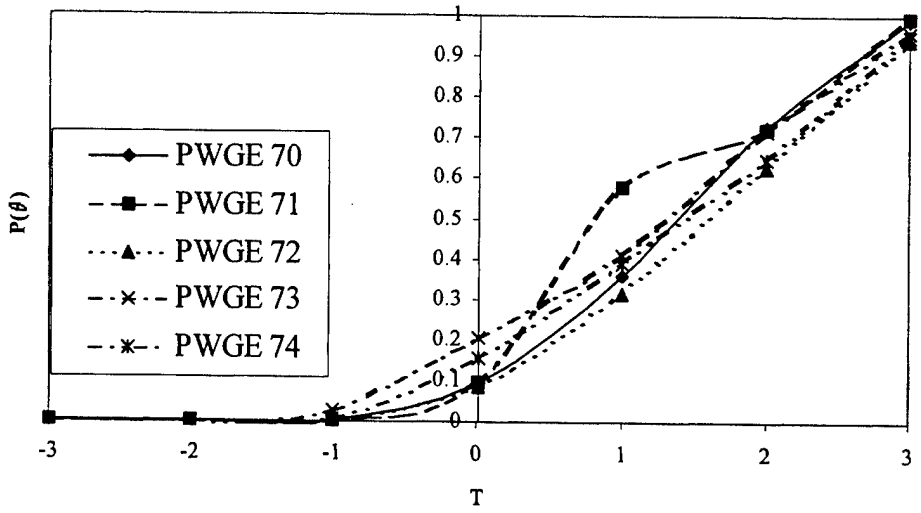
Table 71
Estimated Parameters for Perceived Work Group Effectiveness Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
PWGE 70	2.86	0.10	1.07	1.75	2.37
PWGE 71	3.44	0.09	1.13	1.79	2.36
PWGE 72	2.22	0.20	1.26	2.01	2.67
PWGE 73	2.04	-0.35	0.95	1.69	2.50
PWGE 74	2.32	-0.10	0.95	1.97	2.61

PWGE 70 The amount of output of my work group is very high.
PWGE 71 The quality of output of my work group is very high.
PWGE 72 When high priority work arises, such as short suspenses, crash programs, and schedule changes, the people in my work group do an outstanding job in handling these situations.
PWGE 73 My work group always gets maximum output from available resources (e.g., personnel and materials).
PWGE 74 My work group's performance in comparison to similar work groups is very high.

The ICCs for these items are presented in Figure 72. All the ICCs are gradually accelerating ogives.

Figure 72
ICCs for Perceived Work Group Effectiveness Items for SUEOCS



Commitment

Five of the six items in the Commitment scale (COM 75, COM 76, COM 77, COM 79, and COM 80) have good discriminability indices (see Table 72). These are the same items selected in my previous study (Truhon, 1999). This scale has a marginal reliability of .88 and (the reduced scale) an internal consistency of .88 (Δ= .88 for all cases), but increases to .89 (Δ= .88 for all cases), if item PWGE 70 is removed. These items are listed below:

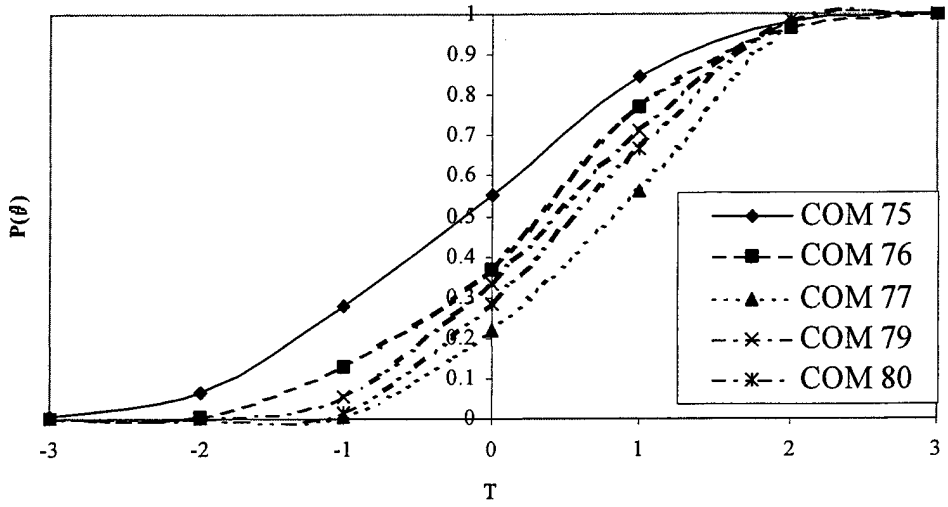
Table 72
Estimated Parameters for Commitment Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
COM 75	1.52	-1.53	-0.64	0.32	0.94
COM 76	2.38	-1.00	0.04	0.83	1.51
COM 77	3.42	-0.26	0.50	1.16	1.63
COM 78	0.05	-38.60	-25.03	-10.60	4.74
COM 79	2.91	-0.74	0.13	0.78	1.42
COM 80	3.03	-0.49	0.27	0.93	1.43

COM 75 I would accept almost any type of assignment in order to stay in this unit.
COM 76 I find that my values and the unit's values are very similar.
COM 77 I am proud to tell others that I am part of this unit.
COM 79 This unit really inspires me to perform my job in the very best manner possible.
COM 80 I am extremely glad to be part of this unit compared to other, similar units that I could be in.

The ICCs for these items are presented in Figure 73. All the ICCs are gradually accelerating ogives.

Figure 73
ICCs for Commitment Items for SUEOCS



Job Satisfaction

There are only five items in the Job Satisfaction scale but they all have good discriminability indices (see Table 73). The scale has a marginal reliability of .80 and an internal consistency of .80 (a= .80 for all cases). These items are listed below.

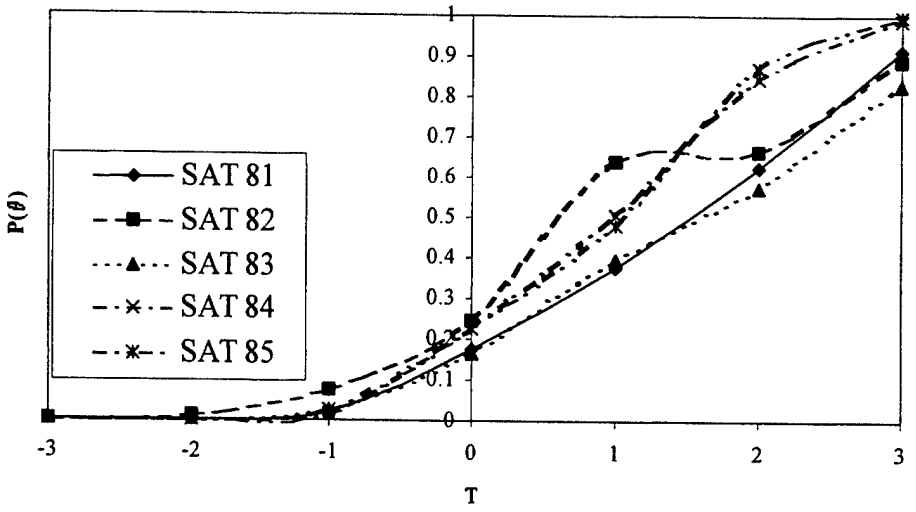
Table 73
Estimated Parameters for Job Satisfaction Items for the SUEOCS using Samejima's Graded Response Model

Item Number	a	b_1	b_2	b_3	b_4
SAT 81	1.91	-0.22	1.02	2.07	2.72
SAT 82	1.38	-0.61	0.74	1.89	2.76
SAT 83	1.54	-0.10	0.84	2.35	3.02
SAT 84	2.03	-0.38	0.64	1.36	2.02
SAT 85	2.64	-0.40	0.73	1.42	1.95

Level of satisfaction with:
SAT 81 the chance to help people and improve their welfare through the performance of my job.
SAT 82 my amount of effort compared to the effort of my co-workers.
SAT 83 the recognition and pride my family has in the work I do.
SAT 84 the chance to acquire valuable skills in my job that prepare me for future opportunities.
SAT 85 my job as a whole.

The ICCs for these items are presented in Figure 74. All the ICCs are gradually accelerating ogives.

Figure 74
ICCs for Job Satisfaction Items for SUEOCS



Discussion

In my previous study (Truhon, 1999), I devised a table similar to Table 74 to compare the scales across the different versions of the MEOCS. What is presented in Table 74 involves using the results of IRT analyses of these scales to determine whether an acceptable reduced scale (i.e., five items with discrimination indices above 1 and an internal consistency of .75) can be produced. Acceptable means that the scale meets these criteria, marginal means that the scale barely meets the criteria or barely misses the criteria, unacceptable means that the scale clearly does not meet one or more criteria. When fewer than five items are listed that means that the scale meets or comes close to meeting the other criteria with fewer than five items. A blank indicates that the particular scale does not exist that this particular version of the MEOCS.

Table 74
Evaluation of DEOMI Survey Instruments and Scales

Scale	MEOCS (Standard)	MEOCS-LITE	SLEOCS	MEOCS-EEO	SUEOCS
Sexual Harassment and Discrimination	Acceptable	4 acceptable items	4 acceptable items	Acceptable	
Differential Command Behavior towards Minorities and Women	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Positive Equal Opportunity Behavior	Acceptable	Acceptable	4 acceptable items	Acceptable	Marginal
Racist/Sexist Behavior	Marginal	4 acceptable items	4 acceptable items	Acceptable	3 acceptable items
Reverse Discrimination (Behavior)	Acceptable	4 acceptable items	4 acceptable items	4 marginal items	Marginal
(Positive) Commitment	Acceptable	Acceptable		Acceptable	4 acceptable items
Lack of Commitment	Marginal				
Perceived Work Group Effectiveness	Acceptable	Acceptable		Acceptable	Acceptable
Job Satisfaction	Acceptable	Acceptable		Acceptable	Acceptable

Discrimination Against Minorities and Women	Acceptable				
Reverse Discrimination (Attitude)	Marginal				
Attitudes toward Racial/Gender Separatism	Acceptable				
Positive Racial Climate	Unacceptable				
General Equal Opportunity Climate	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Equal Opportunity's Link to Leadership and Readiness		Acceptable	Marginal		
Success of Equal Opportunity Programs		4 acceptable items	4 acceptable items		
Importance of Equal Opportunity		Unacceptable	Unacceptable		
Equal Opportunity Issues concerning Relationships between Groups		Acceptable			
Concerns about Discrimination		Acceptable	Acceptable		
Equal Opportunity Issues concerning Relationships between Racial/Ethnic Groups			Acceptable		
Equal Opportunity Issues concerning Relationships between the Sexes			Acceptable		
Positive versus Negative Interpersonal Behavior			Acceptable		
Work-Related Interactions			Unacceptable		
Active versus Passive Behavior			Unacceptable		
Age Discrimination				4 acceptable items	
Religious and Disabled Discriminatory Behavior				Acceptable	
Institutional Discrimination				4 marginal items	
Positive Equal Employment Opportunity Behavior				Unacceptable	
Traditional Attitudes toward Women				4 marginal items	
Trust in the Organization				3 acceptable items	
Work Group Cohesion				4 acceptable items	
Leadership Cohesion				4 acceptable items	

Personal Sexist Attitudes and Beliefs					Marginal
Racist Attitudes in the Unit					4 marginal items
Personal Attitudes toward EO					Acceptable
Acceptance of Diversity					Unacceptable
Personal Feelings regarding Verbal Abuse of Women and Minorities					3 marginal items

Using this table, scales can be categorized as acceptable, possibly acceptable, marginal, and unacceptable. Acceptable scales appear on at least four versions of the MEOCS, usually consist of at least four items with discrimination indices above 1, and have an internal consistency of at least .75. Possibly acceptable scales appear on one or two versions of the MEOCS, consist of at least four items with discrimination indices above 1, and have an internal consistency of at least .75. Marginal scales appear on one or two versions of the MEOCS, contain items with discrimination indices close to 1 or have an internal consistency close to .75. Unacceptable scales appear on one or two versions of MEOCS and have several items with discrimination indices well below 1 or have an internal consistency well below .75.

Each of the scales in Table 74 is thus categorized below. In my previous study (Truhon, 1999), I made recommendations concerning these scales. I will attempt not to repeat those comments. Thus these recommendations should be read together with the previous study in making decisions about which scales and items to retain in the MEOCS 2000.

Sexual Harassment and Discrimination

The Sexual Harassment and Discrimination scale is acceptable. It appears on four versions of the MEOCS. On two of the versions there are only four items, but many of the same items appear on all the versions. The discriminabilities of these items are all very good.

Differential Command Behavior towards Minorities and Women

The Differential Command Behavior towards Minorities and Women scale is acceptable. It appears on all versions of the MEOCS. While no item appears on all versions of the MEOCS, many appear on several versions. The discriminabilities of these items are all very good.

Positive EO Behavior

The Positive EO Behavior scale is acceptable. It appears on all the versions of the MEOCS. Many of the items appear on several versions of the MEOCS. The only marginal case is for the version on the SUEOCS because its internal consistency is low, but all the selected items have high discrimination indices.

Racist/Sexist Behavior

The Racist/Sexist Behavior scale is acceptable. It appears on all the versions of the MEOCS. Many of the items appear on several versions of the MEOCS. The only marginal case is for the version on the SUEOCS because its internal consistency is low, but all the selected items have high discrimination indices.

Reverse Discrimination (Behavior)

The Reverse Discrimination (Behavior) scale is acceptable. It appears on all the versions of the MEOCS. Most of the selected items appear four or five versions. The major problem with this scale is its internal consistency; in three versions the reliability of the reduced scale is close to .75. All the selected items have very good discriminabilities.

(Positive) Commitment

The (Positive) Commitment scale is acceptable. It appears on four versions of the MEOCS. Many items appear on all four versions of the scale. Usually the selected items have acceptable discrimination indices.

Lack of Commitment

The Lack of Commitment scale is marginal. It appears only on the Standard MEOCS and repeats many of the ideas of the Commitment scale except expressed in negative terms. Its internal consistency is close to the cutoff value of .75, but the discrimination indices are very good.

Perceived Work Group Effectiveness

The Perceived Work Group Effectiveness scale is acceptable. It appears on four versions of the MEOCS. Most the same items appear on all the versions of the scale. The internal consistency is generally good and the items have good discriminabilities.

Job Satisfaction

The Job Satisfaction scale is acceptable. It appears on four versions of the MEOCS. Most of the items appear on all the versions of the scale. The internal consistency is generally good and the items have good discriminabilities.

Discrimination Against Minorities and Women

The Discrimination Against Minorities and Women scale is possibly acceptable. It appears only on the Standard MEOCS. The scale has good internal consistency and its items have very good discriminabilities.

Reverse Discrimination (Attitude)

The Reverse Discrimination (Attitude) scale is marginal. It appears only on the Standard MEOCS. It has an internal consistency just above the .75 cutoff and its items have good discriminabilities.

Attitudes toward Racial/Gender Separatism

The Attitudes toward Racial/Gender Separatism scale is possibly acceptable. It appears only on the Standard MEOCS. It has good internal consistency and its items have good discriminabilities.

Positive Racial Climate

The Positive Racial Climate scale is unacceptable. It appears only on the Standard MEOCS. It has poor internal consistency and only two of its items have good discrimination indices.

General EO Climate

The General EO Climate scale is acceptable. It appears on all the versions of the MEOCS. There are only two items in the scale both with very good discriminabilities and the scale has a good internal consistency. In my previous study (Truhon, 1999), I raised the concern that the two items were redundant. I temper that concern noting that the shape of the ICCs for these items are nearly identical but in most cases the discrimination index for one item (Most people would rate the equal opportunity climate in this organization) is higher than for the other (I personally would rate the equal opportunity climate in this organization).

EO's Link to Leadership and Readiness

The EO's Link to Leadership and Readiness scale is marginal. It appears on the MEOCS-LITE and the SLEOCS. Four out of the five items on the two versions of the scale match. In both cases the discrimination indices are good. Its internal consistency on the MEOCS-LITE is good but on the SLEOCS it is close to the .75 cutoff.

Success of EO Programs

The Success of EO Programs scale is possibly acceptable. It appears on the MEOCS-LITE and the SLEOCS. Three of the five items on the two versions of the scale match. In general the discriminabilities of these items are good as are the internal consistencies.

Importance of EO

The Importance of EO scale is unacceptable. It appears on the MEOCS-LITE and the SLEOCS. Although some of the items from the two versions of the scale are similar, only one item matches. The selected items on the SLEOCS have acceptable discriminabilities, but only two on the MEOCS-LITE meet that criterion. In both cases, the internal consistencies are below the .75 cutoff.

EO Issues concerning Relationships between Groups

The EO Issues concerning Relationships between Groups scale is best discussed with EO Issues concerning Relationships between Racial/Ethnic Groups and EO Issues concerning Relationships between the Sexes scales.

Concerns about Discrimination

The Concerns about Discrimination scale is possibly acceptable. It appears on the MEOCS-LITE and the SLEOCS. The same items appear on both versions of the scale. The discriminabilities of the items are good, as are the internal consistencies of both versions of the scale.

EO Issues concerning Relationships between Racial/Ethnic Groups.

The EO Issues concerning Relationships between Racial/Ethnic Groups scale is possibly acceptable. It appears only on the SLEOCS, but many of the same items appear on the EO Relationships between Groups scale on the MEOCS-LITE. The items have good discriminabilities and the scale has good internal consistency.

EO Issues concerning Relationships between the Sexes

The EO Issues concerning Relationships between the Sexes scale is possibly acceptable. It appears only on the SLEOCS, but the same items appear on the EO Relationships between Groups scale on the MEOCS-LITE. The items have good discriminabilities and the scale has good internal consistency.

Positive versus Negative Interpersonal Behavior

The Positive versus Negative Interpersonal Behavior scale is marginal. It appears only on the SLEOCS. Only three of the items have acceptable discriminabilities and the internal consistency of the scale is slightly above the .75 cutoff. Previous work (see Truhon, 1999) has raised questions about the appropriateness of Fielder's (1967) Least Preferred Co-worker (LPC) scale for the SLEOCS.

Work-Related Interactions

The Work-Related Interactions scale is unacceptable. It appears only on the SLEOCS. Only two of the three items have acceptable discriminabilities and its internal consistency falls below the .75 cutoff. It is part of Fiedler's (1967) LPC scale.

Active versus Passive Behavior

The Active versus Passive Behavior scale is unacceptable. It appears only on the SLEOCS. Its two items have very low discriminabilities and its internal consistency is close to the .75 cutoff. It is part of Fielder's (1967) LPC scale.

Age Discrimination

The Age Discrimination scale is possibly acceptable. It appears only on the MEOCS-EEO. Its items have very good discriminabilities and four items form a scale with high internal consistency.

Religious and Disabled Discriminatory Behavior

The Religious and Disabled Discriminatory Behavior scale is possibly acceptable. It appears only on the MEOCS-EEO. All of its items have very good discriminabilities and its internal consistency is also very good.

Institutional Discrimination

The Institutional Discrimination scale is marginal. It appears only on the MEOCS-EEO. Its items have good discriminabilities and its internal consistency is near the .75 cutoff.

Positive Equal Employment Opportunity Behavior

The Positive Equal Employment Opportunity Behavior scale is unacceptable. It appears only on the MEOCS-EEO. Three of its four items have good discriminabilities but its internal consistency is below the .75 cutoff.

Traditional Attitudes toward Women

The Traditional Attitudes toward Women scale is marginal. It appears only on the MEOCS-EEO. Four of its five items have good discriminabilities but its internal consistency is close to the .75 cutoff.

Trust in the Organization

The Trust in the Organization is possibly acceptable. It appears only on the MEOCS-EEO. Three of its four items have good discriminabilities and its internal consistency is good. It may complement other scales of organizational effectiveness.

Work Group Cohesion

The Work Group Cohesion scale is possibly acceptable. It appears only on the MEOCS-EEO. Its four items all have very good discriminablities and its internal consistency is good. It may complement other organizational effectiveness scales.

Leadership Cohesion

The Leadership Cohesion scale is possibly acceptable. It appears only on the MEOCS-EEO. Its four items all have very good discriminabilities and its internal consistency is good. It may complement other organizational effectiveness scales.

Personal Sexist Attitudes and Beliefs

The Personal Sexist Attitudes and Beliefs scale is marginal. It appears only on the SUEOCS. All five of its items have very good discriminabilities but its internal consistency is close to .75 cutoff.

Racist Attitudes in the Unit

The Racist Attitudes in the Unit scale is marginal. It appears only in the SUEOCS. Its four items have good discriminabilities, but its internal consistency is close to the .75 cutoff.

Personal Attitudes toward EO

The Personal Attitudes toward EO scale is possibly acceptable. It appears only on the SUEOCS. All of the selected items have very good discriminabilities and its internal consistency is also very good.

Acceptance of Diversity

The Acceptance of Diversity scale is unacceptable. It appears only on the SUEOCS. Four of its five items have good discriminabilities but its internal consistency falls below the .75 cutoff.

Personal Feelings regarding Verbal Abuse of Women and Minorities

The Personal Feelings regarding Verbal Abuse of Women and Minorities is marginal. It appears only on the SUEOCS. Only three of its six items have good discriminabilities and its internal consistency is close to the .75 cutoff.

Other Findings

The IRT analysis of the different versions of the MEOCS demonstrates how well the MEOCS has been constructed. Generally discrimination indices (a's) of 1 or better are considered good and a's greater than 2 are considered rare (Hambleton et al., 1991). Yet an examination of the discrimination indices of the items presented in this report reveals that the vast majority of the items have a's greater than 1 and frequently greater than 2.

In addition, there is a great deal of similarity between items selected as the best by means of cluster analysis in my previous report (Truhon, 1999) and those by means of IRT. The current study supports the idea that cluster analysis is a good technique for examining the quality of test items. One might be tempted to suggest that cluster analysis be used in these situations because of its ease of use instead of IRT. However, IRT provides a statistical indicator of the quality of items while cluster analysis cannot do so directly.

Directions for Future Research

Another advantage of IRT over cluster analysis is that it provides further directions for future research. As Reise et al. (1993) noted, IRT provides a complement to CFA. Thus the work presented here should be used in conjunction with the work done using CFA on the MEOCS (McIntyre, 1999, in press).

For example, McIntyre (in press) reported that there were similarities and differences between sociocultural groups' responses to the MEOCS. Donovan and Drasgow (1999) reported on a procedure in IRT called differential test functioning (DTF; Raju, van der Linden, & Fleer, 1995) which can be used to examine the measurement equivalence across groups. This technique can help determine whether the difference in response is merely in the mean level of response or in how each group thinks about the latent construct. DTF can also be used to determine if equivalence can occur if some items are eliminated from a test or scale.

Two other research questions can be examined using IRT in this way. Johnson (in press) reported on racial and gender differences in military personnel's responses to the five-factor model of personality. IRT and DTF could be used to examine the nature of these differences. Dansby (1996, 1998) has reported that senior leaders perceive less of problem in EO than do lower-ranked military personnel. IRT and DTF could also be used here to examine the nature of these differences.

One regret of the current study was the inability to cross-validate the findings of this study. While the findings of the current study are consistent with other reports, future research should apply these findings to a

different sample. Techniques like Williams' (1999; cited in Stark et al., 1999) program EMPOCC should make this possible.

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