

# INITIAL REPORT OF THE OIDAP WORK TAXONOMY SUBCOMMITTEE

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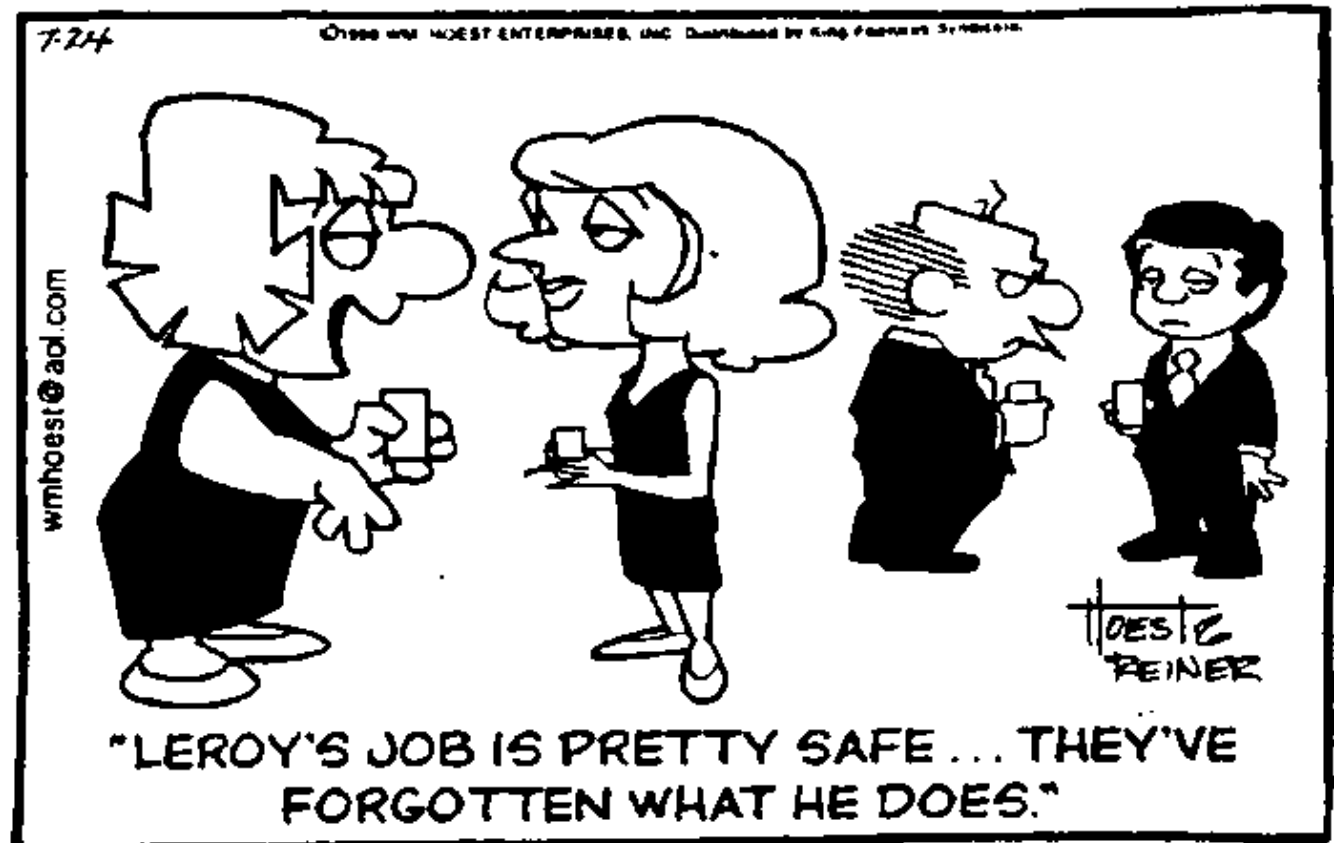
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# OVERVIEW

- ③ Fundamentals of Work Analysis
- ③ Work Taxonomy Evaluation Methodology
- ③ Work Taxonomy Evaluation Criteria

# FUNDAMENTALS OF WORK ANALYSIS

## THE LOCKHORNS



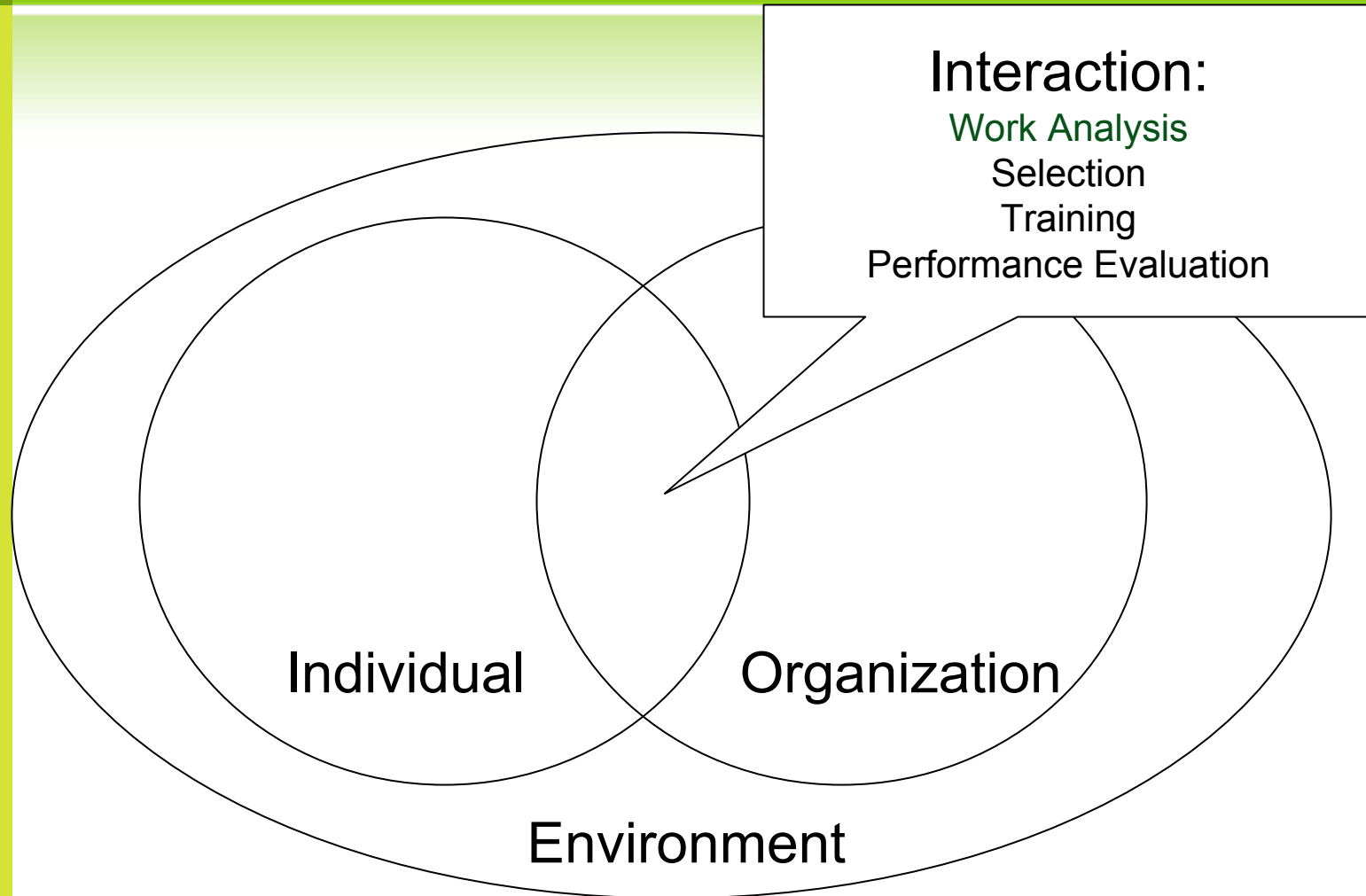
# FUNDAMENTALS OF WORK ANALYSIS OVERVIEW

- ① Definition
- ① Two Important Models
- ① Important Job Analysis Decisions
- ① What is a job analysis system?
- ① Making Job Comparisons

# DEFINITION

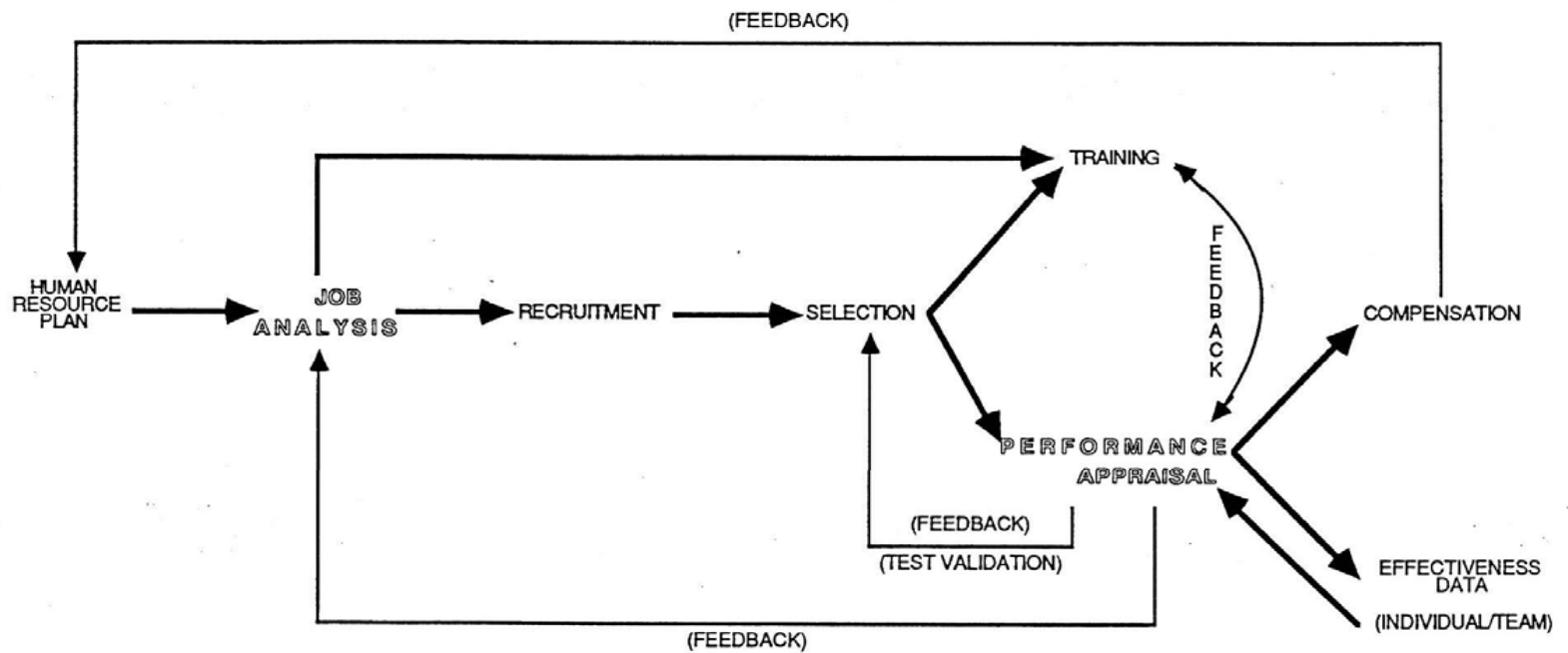
- ③ Definition of Work Analysis
  - ③ Collecting Information about Jobs
  - ③ By any Means
  - ③ For any Purpose

# THE IOIE MODEL



# IPRS MODEL

## THE INTEGRATED PERSONNEL RESOURCE SYSTEM



# IMPORTANT WORK ANALYSIS DECISIONS

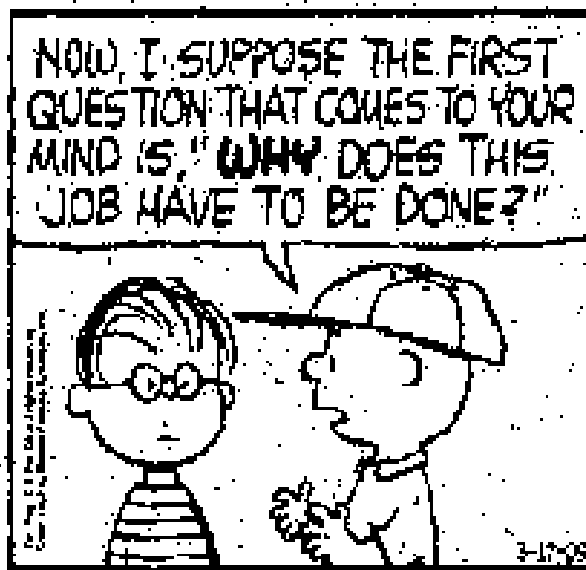
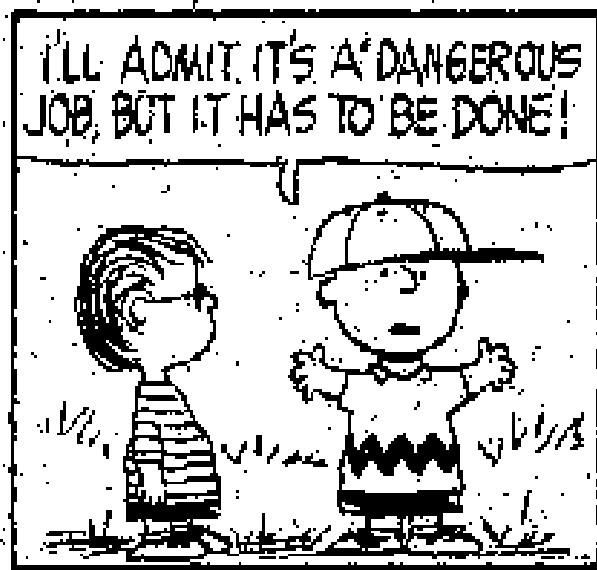
- ① Purpose of the Analysis
- ① Level of Analysis/Degree of Specificity
- ① Source of information
- ① Mode/Form of information collection
- ① Evaluation Criteria



# PURPOSE OF THE ANALYSIS

- ③ A Job Analytic Information System Describing all Available Work in the US Economy for Disability Determination
- ③ Ability to Withstand Both Legal and Scientific Challenges

# WHY ME?



# DEGREE OF ANALYSIS SPECIFICITY

<i>⊙ Degree of Specificity</i>	<i>Numbers</i>
⊙ Occupation	1000's
⊙ Job	10's-100's
⊙ Position	1
⊙ Job Dimensions	10's
⊙ Generalized Work Activities	10's
⊙ Duties	10's
⊙ Tasks	100's
⊙ Elements	1000's

# SOURCES OF WORK INFORMATION

- ⊙ Incumbent
- ⊙ Peers
- ⊙ Supervisor
- ⊙ Subordinate
- ⊙ Analyst

# MODES/ FORM OF INFORMATION COLLECTION

- ⊙ Diary
- ⊙ Interview
- ⊙ Observation
- ⊙ Participation
- ⊙ Survey
- ⊙ Web/Document Search

# HOW DO YOU EVALUATE WORK ANALYSIS RESULTS?

- ① Acceptability
- ① Utility
- ① Shelf Life
- ① Reliability
- ① Validity

# SAMPLE WORK ANALYSIS SYSTEMS?

- ◎ Combinations of Specificity, Source, Mode, & Evaluation Criteria Decisions
  - ◎ *Functional Job Analysis*
  - ◎ *CODAP - Task Inventories*
  - ◎ *Generalized Work Activity Questionnaires*

# FUNCTIONAL JOB ANALYSIS

- ◎ Rational Job Dimensions
  - ◎ Worker Function and Orientation
    - Data, People, Things
  - ◎ Worker Instructions
  - ◎ General Educational Development
    - Reasoning, Math, Language
- ◎ Makes use of Task Ratings



# FJA TASK RATING

<b>TASK CODE:</b>									
WORKER FUNCTION AND ORIENTATION						WORKER INSTRUCTIONS	GENERAL EDUCATIONAL DEVELOPMENT		
THINGS	%	DATA	%	PEOPLE	%		REASONING	MATH	LANGUAGE
4C	65	3B	25	1A	10	4	3	3	3
<b>GOAL:</b> Operates Grader — Output Basic						<b>OBJECTIVE:</b> Backfilling, scarifying, windrowing, cutting firebreak, maintaining haul road, snow removal			
<b>TASK:</b> Operates grader manipulating controls to travel forward/back, turn, raise/lower blade, position wheels and blade at correct angles; follows work order and markings on grade stakes, drawing on knowledge and experience, monitoring the performance of the equipment and adapting to the changing situation, constantly alert to the presence and safety of other workers/equipment, in order to perform routine grader tasks such as backfilling, haul road maintenance, snow removal.									

# CODAP - TASK INVENTORIES

- ⊙ Inventory of Job Tasks for Multiple Jobs
- ⊙ Often Evaluated on Several Scales
  - Difficulty
  - Frequency
  - Time
- ⊙ Used for many purposes including to assess training

# EXAMPLE INVENTORY TASKS

- ① Apply safety awareness techniques
- ① Arrest individual for bookable violations and warrants
- ① Attend press conferences/media events on special projects
- ① Chart trainees' daily activities
- ① Check schedules for accuracy
- ① Correspond regularly with court officials

# GENERALIZED WORK ACTIVITY QUESTIONNAIRE

- ◎ Often Based on a “Theory of Work”
  - Work Inputs
  - Work Processes
  - Work Output
- ◎ Meant to Apply to all or most Work
- ◎ Normative Data Collected

# GENERALIZED WORK ACTIVITY RATING

<p><b>If Yes, how OFTEN do you perform this activity?</b> Choose the one best answer</p>	<p><b>How CRITICAL is this activity to accomplishing the main mission of your job?</b> Choose the one best answer</p>
<p>a) Constantly to hourly b) Every few hours to daily c) Every few days to weekly d) Every few weeks to monthly e) Every few months to yearly</p>	<p>a) Part of my job, but of relatively minor importance b) Necessary, but not critical c) Absolutely critical</p>

(if yes, check here and answer below)

<input type="checkbox"/>	<p><b>As part of your job, DO YOU... Work in pairs?</b></p>						
<p>If Yes, how OFTEN do you perform this activity?</p>			<p>How CRITICAL is this activity?</p>				
a	b	c	d	e	a	b	c
<input checked="" type="checkbox"/>	<p><b>As part of your job, DO YOU... Work in teams?</b></p>						
<p>If Yes, how OFTEN do you perform this activity?</p>			<p>How CRITICAL is this activity?</p>				
a	b	c	d	e	a	b	c

In this example, there are two activity questions:

# MAKING JOB COMPARISONS

- ③ Metric is Important
- ③ Level of Work Specificity Matters

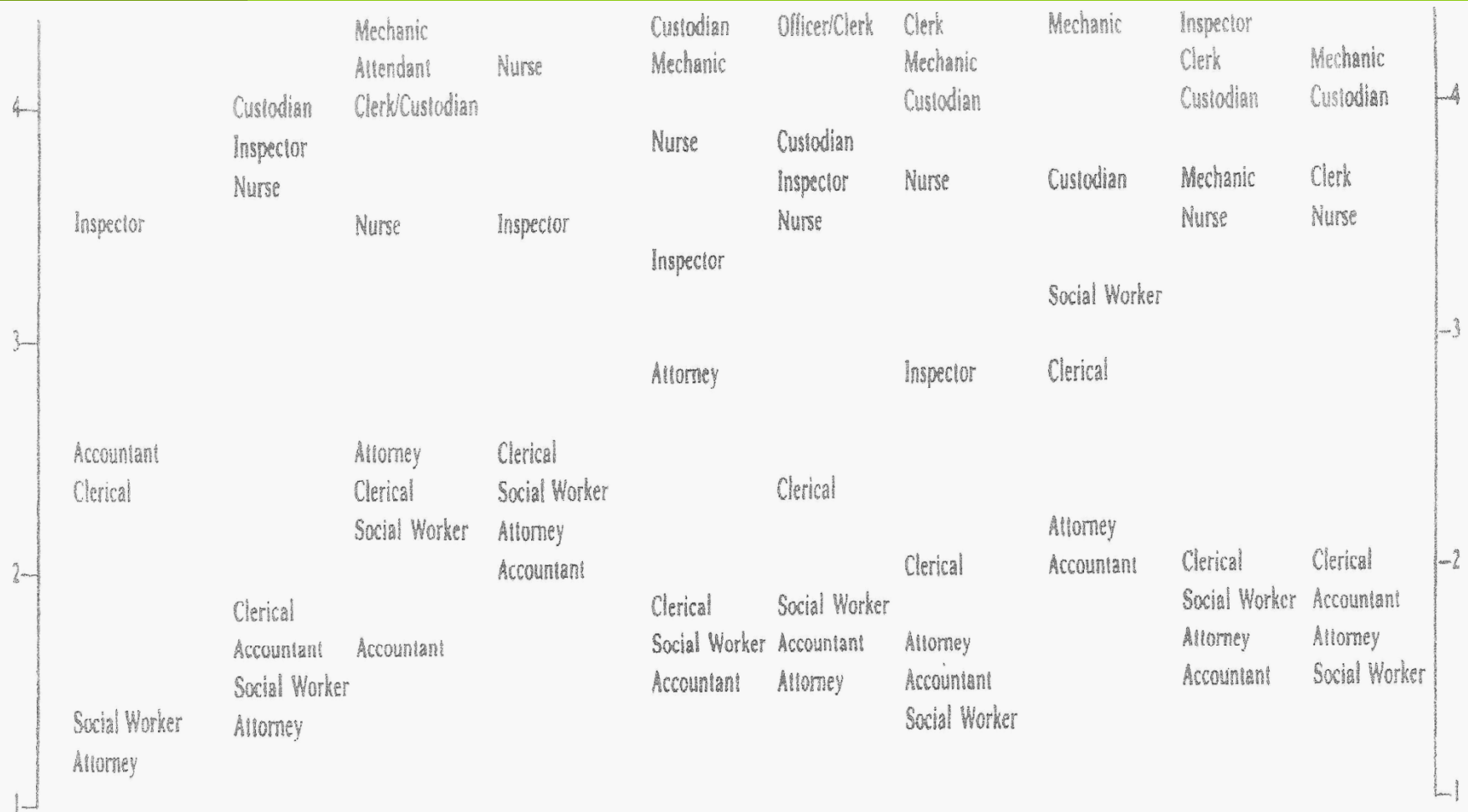
# JOBS GROUPED BY ABILITY LEVEL

TABLE 12.4

Partial List of Jobs Grouped According to Common Abilities Needed<sup>a</sup>

	Static Strength	Explosive Strength	Dynamic Strength	Trunk Strength	Stamina	Extent Flexibility	Dynamic Flexibility	Speed of Limb Movement	Gross Body Coordination	Gross Body Equilibrium
7								Officer		
6	Firefighter	Firefighter Officer			Firefighter			Firefighter		Firefighter
	Attendant		Firefighter	Firefighter				Attendant		
	Operator								Firefighter	Inspector
	Officer				Operator	Officer	Mechanic	Firefighter	Officer	Officer
	Clerk/Painter			Operator	Laborer	Officer	Firefighter			Painter
	Laborer/Mechanic							Operator		
5		Operator	Officer							
		Attendant		Clerk/Officer	Operator	Attendant	Operator/Officer	Inspector	Operator	
	Custodian	Mechanic	Painter	Attendant	Laborer	Painter	Attendant		Attendant	Operator
		Laborer	Operator	Mechanic/Painter			Laborer	Clerk	Painter	Laborer
		Clerk/Painter	Inspector		Attendant	Operator	Painter	Laborer/Nurse	Laborer	Attendant
	Nurse		Laborer	Custodian	Clerk/Painter	Laborer		Painter		

# JOBS GROUPED BY ABILITY LEVEL



<sup>a</sup>Adapted with permission from Hogan, J. C., Ogden, G. D., and Fleishman, E. A. *Assessing physical requirements for establishing medical standards in selected benchmark jobs* (ARRO Final Report 3012/R78-8). Washington, D.C.: Advanced Research Resources Organization, June 1978.



# WORK TAXONOMY DEVELOPMENT METHODOLOGY OVERVIEW

- ① Definition
- ① Identify Existing Taxonomies
- ① Compare Existing Taxonomies
- ① Evaluate Dimensions for Disability Determination Sensitivity
- ① Progress Report

# DEFINITION

- ◎ Definition of Work Taxonomy
  - ◎ Can be Rational or Empirical
  - ◎ Is Meant to be Comprehensive
  - ◎ Primary Purpose is Classification
  - ◎ Can Vary in Level of Detail
  - ◎ Can Be Based on Work Characteristics or Job Titles
  - ◎ Most Frequently not the Level at Which Information is Collected

# IDENTIFICATION OF EXISTING TAXONOMIES

- ③ Reviewed Scientific Literature
- ③ Conducted Database and Web Searches
- ③ Solicited Suggestions from Subcommittee Members and SSA Staff Advisors

# CURRENT TAXONOMIES RETAINED FOR ANALYSIS

- ⊙ Occupational Analysis Inventory (OAI)
- ⊙ General Work Inventory (GWI)
- ⊙ Occupational Aptitude Patterns Map (OAP Map)
- ⊙ Job Element Inventory (JEI)
- ⊙ Common-Metric Questionnaire (CMQ)

# CURRENT TAXONOMIES RETAINED FOR ANALYSIS

- ⊙ Worker Activity Profile (WAP)
- ⊙ Position Analysis Questionnaire (PAQ)
- ⊙ Professional and Managerial Position Questionnaire (PMPQ)
- ⊙ The Occupational Information Network (O\*NET)
- ⊙ Management Position Description Questionnaire (MPDQ)
- ⊙ Purdue Cognitive Task Analysis Questionnaire (PCTAQ)

# COMPARE EXISTING TAXONOMIES

Work Taxonomy Dimension	OAI	GWI	OAP
1. Dimension 1 (OAI) 2. Dimension 6 (GWI) 3. Dimension 3 (OAP)	X	X	X
1. Dimension 4 (GWI) 2. Dimension 7 (OAP)		X	X
1. Dimension 2 (OAI) 2. Dimension 4 (OAP)	X		X

# EVALUATE DIMENSIONS FOR DISABILITY DETERMINATION SENSITIVITY

Work Taxonomy Dimension	Physical	Cognitive	E, B, I
1. Dimension 1 (OAI) 2. Dimension 6 (GWI) 3. Dimension 3 (OAP)	X		
1. Dimension 4 (GWI) 2. Dimension 7 (OAP)		X	X
1. Dimension 2 (OAI) 2. Dimension 4 (OAP)	X	X	X

# WORK TAXONOMY EVALUATION CRITERIA

- ⦿ Does the dimension have obvious physical, cognitive, emotional, behavioral, or interpersonal relationship to world of work
- ⦿ Even if it does not, is it a dimension which is relevant to determining transferability of skills
- ⦿ Does the dimension show up in multiple taxonomies



# WORK TAXONOMY EVALUATION CRITERIA

- ⦿ Is the dimension legally defensible – can it be unambiguously measured as an “observable” or as having an observable outcome
- ⦿ Is the Dimension sensitive to the jobs SSA currently sees frequently
- ⦿ Is the Dimension sensitive to the emerging characteristics of a knowledge/service intensive world of work

# SUBCOMMITTEE PROGRESS REPORT

- ③ Have Identified 11 Work Characteristics Taxonomies for Further Analysis
- ③ Have Identified A Method of Analysis
- ③ Have Identified 6 Evaluation Criteria

# QUESTIONS

## Pepper . . . And Salt

THE WALL STREET JOURNAL



*"I was feeling nostalgic,  
so I thought we'd talk  
instead of text."*