

# ILTED CODEBOOK

Version 1.0

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## 1. Variable Structure

ILTED is provided using ISCO-08 (International Standard Classification of Occupations) in 2-digit, 3-digit, 4-digit precision, as well as ONET-SOC 2010. Following, the used variables are detailed.

### ISCO-08 (2-digit, 3-digit, 4-digit)

#### Variables:

Variable name	Code	Description
ISCO-08	N numerical (integer) digits, where N is 2, 3 or 4	ISCO-08 code: sub-major (2 digits), minor (3 digits) or unit (4 digits)
ISCO-08 Title	String	ISCO-08 group title
CL Index	0.00 - 100.00	Linguistic Competences
HSC Index	0.00 - 100.00	Communication Skills
HTI Index	0.00 - 100.00	Information-processing Abilities
ILT Index	0.00 - 100.00	Linguistic Intensity of Occupations

### ONET-SOC 2010

#### Variables:

Variable name	Code	Description
SOC-2010	NN-NNNN.NN	ONET-SOC 2010 code
SOC-2010 Title	String	ONET-SOC 2010 group title
CL Index	0.00 - 100.00	Linguistic Competences
HSC Index	0.00 - 100.00	Communication Skills
HTI Index	0.00 - 100.00	Information-processing Abilities
ILT Index	0.00 - 100.00	Linguistic Intensity of Occupations

## 2. Computed Indexes

- CL (Linguistic Competences):** Built from indicators related to listening, speaking, reading, and writing skills required in the occupation. Each indicator is derived from standardized measures of language use in tasks.
- HSC (Communication Skills):** Built from indicators measuring interaction and coordination with others, negotiation, and other communicative tasks.
- HTI (Information Processing Abilities):** Built from indicators measuring the ability to analyze, interpret, and manage information in the job context.
- ILT (Linguistic Intensity of Occupations):** A second-order formative composite index summarizing CL, HSC, and HTI. Factor scores for the three dimensions are standardized using the formula:

$$\text{(Score} - \text{Minimum}) / (\text{Maximum} - \text{Minimum}) \times 100$$

This produces four indices (CL, HSC, HTI, ILT) scaled from 0 to 100, where 100 indicates the maximum level of requirement for an occupation.

### 3. Variables Used to Construct the Indexes

#### CL - Linguistic Competences

Item	Variable	Description
V01	Active listening	Paying full attention to what others say, taking time to understand arguments, asking questions as appropriate, and not interrupting at inappropriate times.
V02	Knowledge of English language	Understanding the structure and content of the English language, including meaning and spelling of words, rules of composition, and grammar.
V03	Oral comprehension	Ability to listen and understand information and ideas presented through spoken words and sentences.
V04	Oral expression	Ability to communicate information and ideas by speaking so others can understand.
V05	Reading comprehension	Understanding written sentences and paragraphs in work-related documents.
V06	Speaking ability	Talking to others to convey information effectively.
V07	Clarity in speech	Ability to speak clearly so others can understand.
V08	Speech recognition	Ability to identify and understand another person's speech.
V09	Writing ability	Communicating effectively in writing as appropriate for the audience's needs.
V10	Written comprehension	Ability to read and understand information and ideas presented in writing.
V11	Written expression	Ability to communicate information and ideas in writing so others can understand.

#### HSC - Communication Skills

Item	Variable	Description
V12	Public speaking	Frequency with which one must speak in public at work.
V13	Maintaining audience attention	Ability to focus on a single source of sound in the presence of distracting sounds.
V14	Communication with external parties	Communicating with people outside the organization, representing the organization to clients, the public, government, and other external sources. This information may be exchanged in person, in writing, by telephone, or by email.
V15	Communication with supervisors, peers, or subordinates	Providing information to supervisors, coworkers, and subordinates by telephone, in writing, by email, or in person.
V16	Contact with others	Frequency with which the worker is in contact with others (face-to-face, by phone, or otherwise) to perform the job.

<b>V17</b>	Building and maintaining interpersonal relationships	Developing constructive and cooperative working relationships with others and maintaining them over time.
<b>V18</b>	Face-to-face discussions	Frequency with which the worker must have face-to-face conversations with individuals or teams at work.
<b>V19</b>	Negotiation	Ability to reconcile differences.
<b>V20</b>	Persuasion	Persuading others to change their minds or behavior.
<b>V21</b>	Social perception	Being aware of others' reactions and understanding why they react as they do.
<b>V22</b>	Telephone conversations	Frequency with which telephone conversations occur at work.
<b>V23</b>	Negotiation and conflict resolution	Handling complaints, settling disputes, resolving conflicts, or negotiating with others.
<b>V24</b>	Coordination	Ability to adjust one's actions in relation to others' actions.

## HTI - Information Processing Abilities

<b>Item</b>	<b>Variable</b>	<b>Description</b>
<b>V25</b>	Data analysis	Identifying underlying principles, reasons, or facts of information, breaking information or data into separate parts.
<b>V26</b>	Documenting information	Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
<b>V27</b>	Evaluating information	Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
<b>V28</b>	Obtaining information	Observing, seeking, receiving, and obtaining information from all relevant sources.
<b>V29</b>	Organizing information	Ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
<b>V30</b>	Writing letters and memos	Frequency with which the job requires writing letters and reports.
<b>V31</b>	Memorization	Ability to remember information such as words, numbers, pictures, and procedures.
<b>V32</b>	Processing information	Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.
<b>V33</b>	Speed of closure	Ability to quickly understand, combine, and organize information into meaningful patterns.
<b>V34</b>	Decision-making and problem-solving	Analyzing information and evaluating results to choose the best solution and solve problems.
<b>V35</b>	Interpreting information for others	Translating and/or explaining to others what information means and how it can be used.
<b>V36</b>	Identifying objects, actions, and events	Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

## 4. Descriptive Statistics

**ISCO-08 (2-digit) —  $n = 40$**

Index	Mean	SD	Min	p25	p50	p75	Max
CL	46.96	17.19	8.16	35.06	49.96	58.57	79.67
HSC	50.09	20.72	12.64	32.28	49.84	66.68	100.00
HTI	45.44	21.22	6.42	28.99	46.84	56.28	91.64
ILT	50.13	21.10	9.54	32.16	52.90	63.24	94.08

**ISCO-08 (3-digit) —  $n = 126$**

Index	Mean	SD	Min	p25	p50	p75	Max
CL	47.41	17.82	7.32	34.73	49.87	58.44	83.39
HSC	48.89	18.26	12.64	33.99	51.35	61.75	100.00
HTI	48.74	20.94	6.42	32.95	50.27	61.03	92.73
ILT	52.10	20.57	9.54	38.30	53.74	65.55	94.08

**ISCO-08 (4-digit) —  $n = 422$**

Index	Mean	SD	Min	p25	p50	p75	Max
CL	46.73	17.63	0.00	33.16	50.39	58.32	90.75
HSC	47.79	18.61	3.74	32.02	50.04	59.81	100.00
HTI	48.04	19.73	0.00	34.30	49.80	61.20	92.73
ILT	51.24	19.73	0.00	35.88	53.53	64.33	94.08

**SOC-2010 —  $n = 966$**

Index	Mean	SD	Min	p25	p50	p75	Max
CL	48.69	19.08	0.00	33.34	51.24	61.77	100.00
HSC	47.25	17.50	0.00	33.12	48.27	61.07	100.00
HTI	51.60	20.19	0.00	36.80	52.34	66.93	100.00
ILT	53.90	20.23	0.00	36.88	55.58	70.01	100.00