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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21664-2025

Replacing GB/T 21664-2008

Work sampling methods

工作抽样方法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 21664-2008 "Work Sampling Methods". Compared with GB/T 21664-2008, the only changes are structural adjustments and editing. Aside from the sexual alterations, the main technical changes are as follows:

- a) The applicable scope has been changed (see Chapter 1, Chapter 1 of the.2008 edition);
- b) A new chapter on "Terms and Definitions" has been added (see Chapter 3);
- c) The scope and conditions for application of the work sampling method have been removed (see Chapter 3 of the.2008 edition);
- d) In addition to the two existing methods, statistical and graphical methods were added to determine the sample size (see 5.2);

e) The description of the types of sampling methods has been changed (see 5.3, 4.1.4 of the 2008 edition);

f) The method for determining the observation route has been changed (see 5.4, 4.1.5 in the 2008 edition); Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Human Resources and Social Security of the People's Republic of China. This document is under the jurisdiction of the National Technical Committee on Standardization of Labor Quotas and Staffing (SAC/TC131). This document was drafted by: Beijing Information Science and Technology University, Capital University of Economics and Business, China Machinery Industry Federation, and China State Railway Group. Limited Liability Company, CRRC Corporation Limited, China Railway Engineering Corporation Limited, and China Academy of Labor and Social Security Sciences. The main drafters of this document are: Qu Li, Pang Dejing, Nie Xirong, Liu Fuwen, Sun Yimin, An Hongzhang, Fu Guangzeng, and Lü Runze. The release history of this document and the document it replaces is as follows:

---First published in 2008 as GB/T 21664-2008;

---This is the first revision. Work sampling method

1 Scope

GB/T 21664-2025 is the Chinese national standard covering work sampling - establishing how time is spent by taking many random instantaneous observations rather than by timing continuously, with the sample size the required precision demands and the statistics behind the result. It replaces GB/T 21664-2008, with the time study standard GB/T 23859-2025. It was issued on 31 December 2025 and has been in force since 1 April 2026, replacing GB/T 21664-2008. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document describes the types of work sampling methods, work steps, work sampling implementation, and data analysis. This document is applicable to research on time utilization and labor (work) efficiency, the compilation and revision of labor quotas, and the analysis and research of various time consumption methods. Consumption, compile and relax time standards, and level the production line.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this

document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 14002 Terminology for Labor Quotas and Staffing

3 Terms and Definitions

The terms and definitions defined in GB/T 14002 and the following terms and definitions apply to this document.

3.1 Worksampling Using the principles of random sampling in statistics, and adhering to the principles of equal probability and independence of randomness, sampling is conducted on-site operators or machinery. Instantaneous observation and recording are used to investigate the frequency and incidence of various operational events, using the necessary and smallest possible sample size to infer the nature of the observed object. A method for analyzing the overall situation.

3.2 Simple random sampling For a population of size N , a method is used to draw a sample of size n , where all possible samples have an equal probability of being selected. [Source: GB/T 3358.2-2009, 1.3.4, with modifications]

3.3 systematic sampling The population is divided into several balanced parts, and then, according to pre-defined rules, one individual is drawn from each part to obtain the required quantity. Sample method. [Source: GB/T 3358.2-2009, 1.3.12, with modifications]

3.4 Stratified sampling A method for randomly selecting individuals from different strata (types) in a prescribed proportion from a population that can be divided into different strata (types). [Source: GB/T 3358.2-2009, 1.3.6, with modifications]

3.5 The probability that the estimated value and the population parameter are within a certain allowable error range.