

Recent Innovations and Human Resource Development: Japan's Efforts to Increase User Engagement

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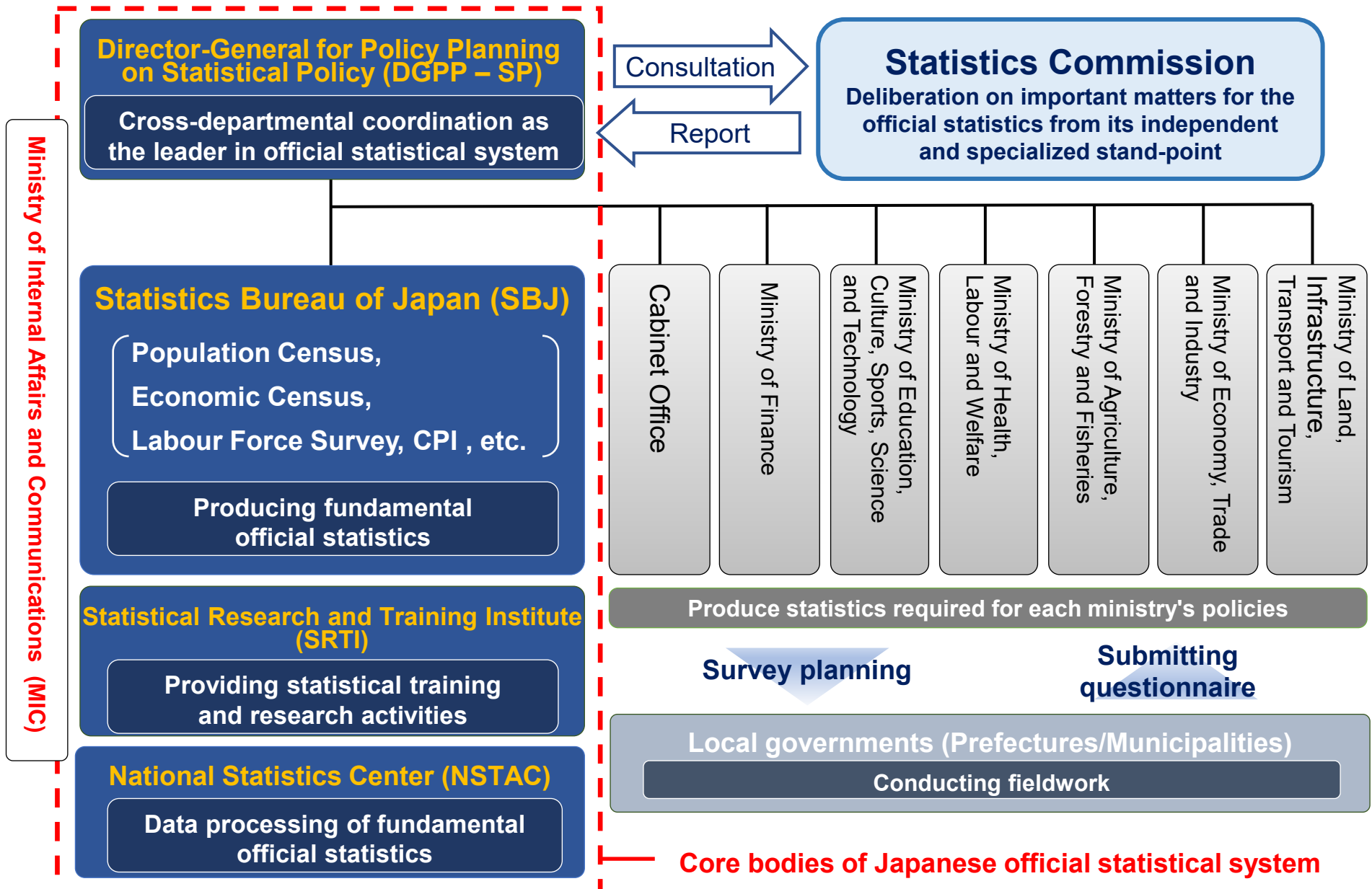
Statistics Bureau of Japan

Outline

- 1 Statistical Organization in Japan
- 2 Recent Innovations
 - (a) Development of new indicators to grasp consumption trends
 - (b) Improvement of microdata access
- 3 Human Resource Development

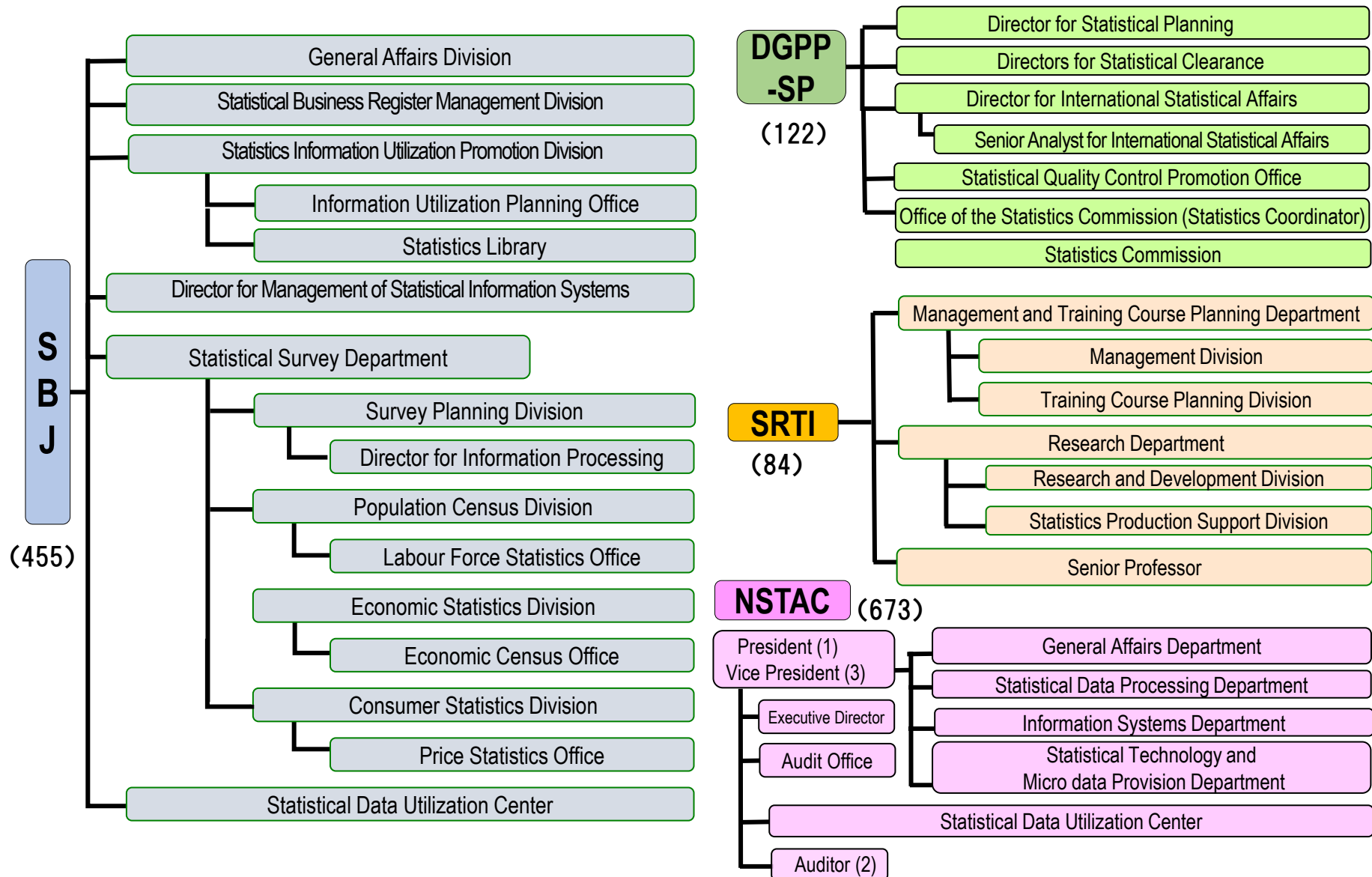
1 Statistical Organization in Japan

Japanese Official Statistical System



Organization chart of the core bodies

(The number of staff as of March 2025)



Censuses and Surveys conducted by SBJ

Monthly surveys

- Labor Force Survey*
- Retail Price Survey for CPI*
- Family Income and Expenditure Survey*
- ✓ Survey of Household Economy
- Monthly Business Survey of Services

*Reported to Cabinet Meeting

Annual surveys

- Annual Business Survey
- Unincorporated Enterprise Survey
- Survey of Research and Development

Non-survey statistics - Monthly

Population estimates
Report on Internal Migration
Consumption Trend Index

Quinquennial censuses and surveys

- Population Census: 2025
- Economic Census for Business Frame: 2024
- Economic Census for Business Activities: 2021
- Housing and Land Survey: 2023
- Employment Status Survey: 2022
- Survey on Time Use and Leisure Activities: 2021
- National Survey of Family Income, Consumption and Wealth: 2024

○ : Fundamental Statistical Survey
(mandatory to respond)

✓ : General Statistical Survey

2 Recent Innovations

(a) Development of new indicators to grasp consumption trends

□ Background

- SBJ has been conducting the Family Income and Expenditure Survey (FIES) every month since 1946 (The sample size of the FIES is about 9,000)
- The results of the FIES are used to estimate a private final consumption expenditure of GDP
- In October 2015, the Finance Minister Taro ASO, Former Prime Minister, pointed out that
 - The divergence between supply-side statistics and FIES is widening
 - The sample size of the FIES, especially for youth, is small

(a) Development of new indicators to grasp consumption trends

❑ Measures: What SBJ has worked on

- To improve the FIES, the SBJ set up a Task Force in 2016 and discussed several issues with experts
- As a result of the discussion, the TF decided
 - To launch a monitor survey for one-person households to supplement the FIES
 - To develop new indicators to grasp household consumption trends and assess the economy
- Following this decision, SBJ
 - Started the Expenditure Monitor Survey for One-person Households (EMS) in Aug. 2016
 - Developed the Consumption Trend Index (CTI) and started dissemination in Mar. 2018

□ Overview of the 2020-base CTI

CTI-micro and CTI-macro are timely indicators to grasp both micro and macro consumption trends

The Household Consumption Trend Index (CTI micro)

- ◆ An index that shows the trend of the average amount of household consumption expenditure in Japan monthly
- ◆ The average of the monthly consumption expenditure is calculated by combining monthly results of the FIES, the Survey of Household Economy (SHE), and the EMS
- ◆ The index is calculated by using the monthly average of the consumption expenditure

The Total Consumption Trend Index (CTI macro)

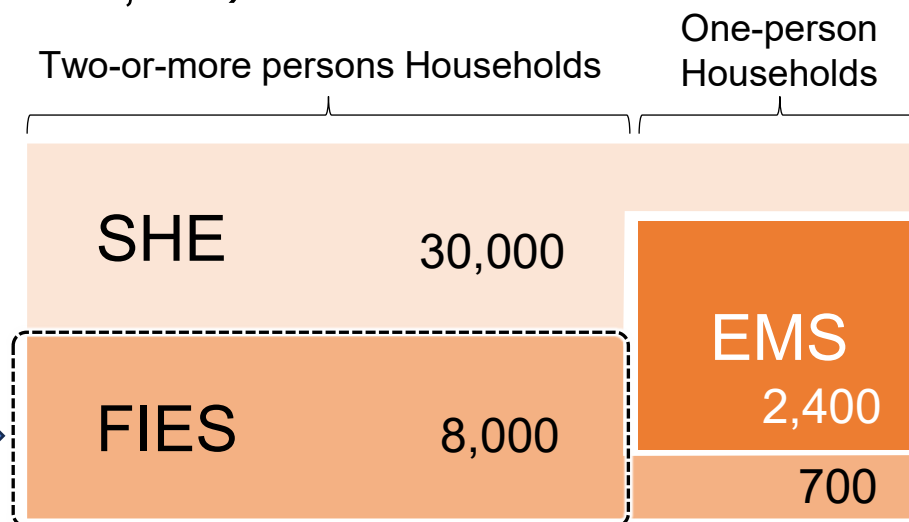
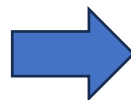
- ◆ An index to estimate the transition of the total consumption expenditure of all households in Japan monthly, targeting the final consumption expenditure of households in the quarterly GDP
- ◆ The total consumption expenditures are estimated monthly by means of a time series regression model
- ◆ The index is calculated by using the estimated monthly total consumption expenditures

❑ The idea for estimating the CTI micro

To improve the accuracy of the FIES, we reinforce the data by expanding the sample size artificially, utilizing EMS and SHE data and applying statistical method

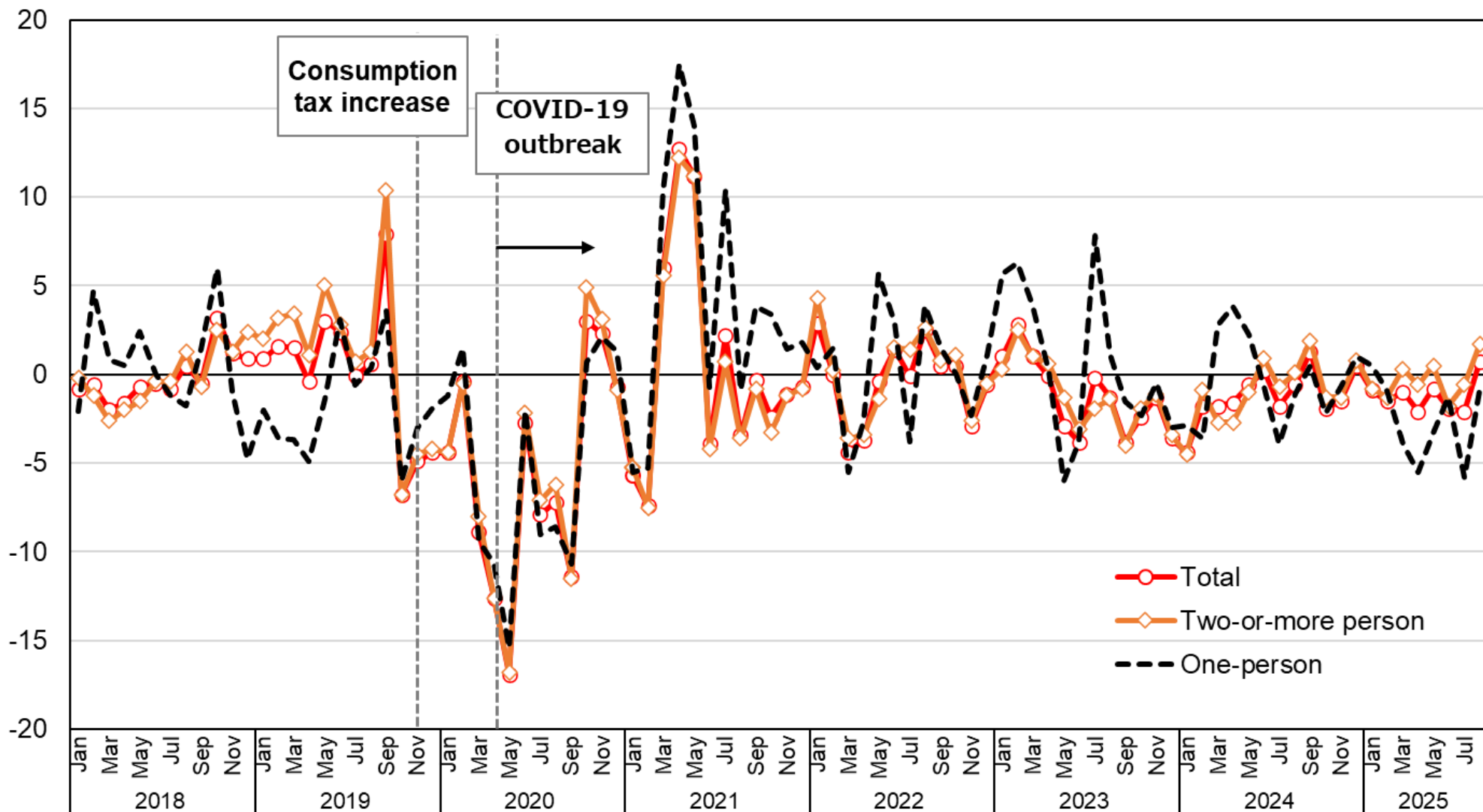
- **FIES: Family Income and Expenditure Survey**
(sample size: two-or-more person households 8,000
one-person households 700)
- **EMS: The Expenditure Monitor Survey for One-person Households** (sample size: 2,400)
- **SHE: The Survey of Household Economy**
(sample size: 30,000)

The scope of the
release of the FIES



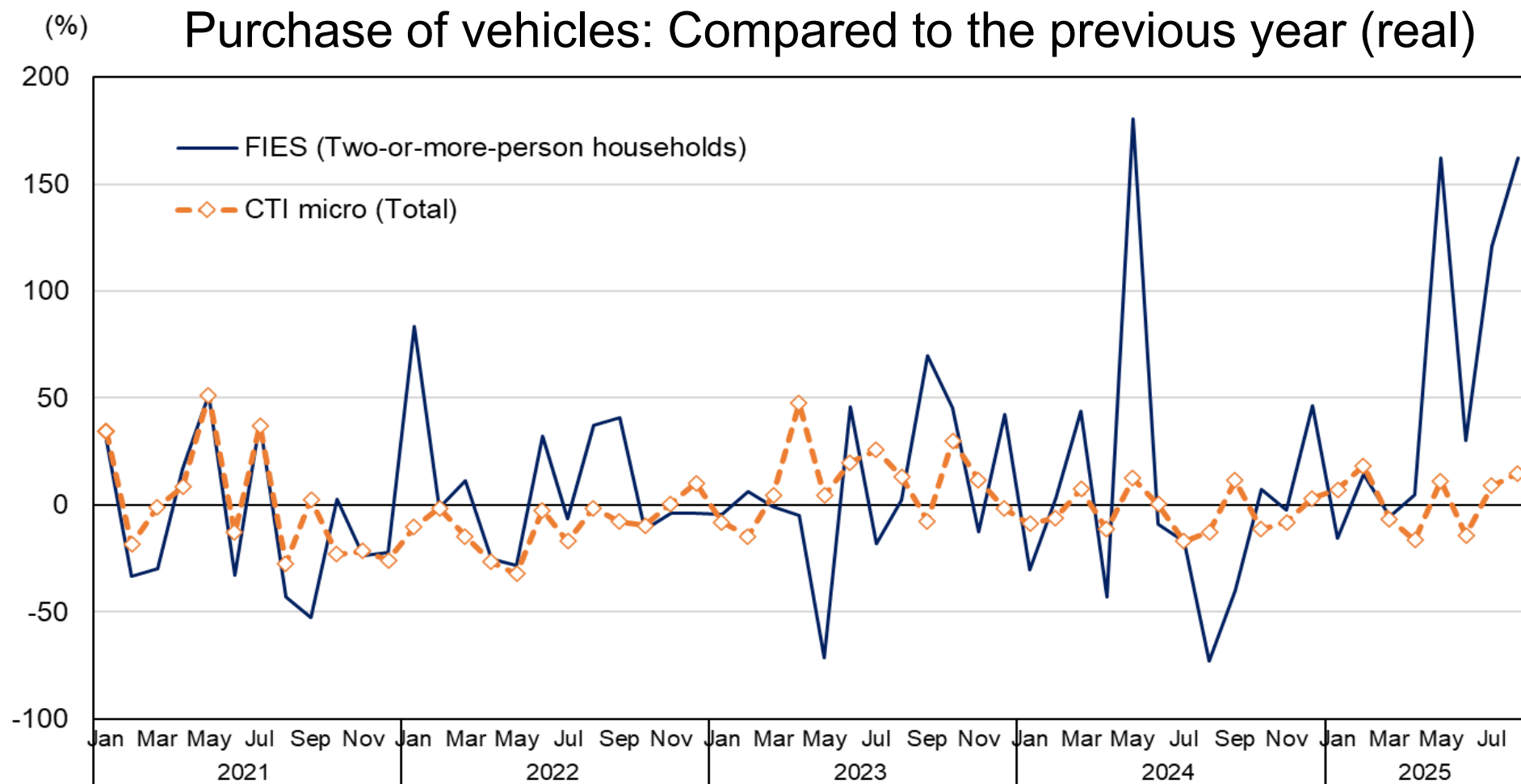
■ Data of the CTI micro

(%) Consumption expenditures: Compared to the previous year (real)



■ Data of the CTI micro

Contributes to grasping the actual consumption trends of rare and expensive commodities stably



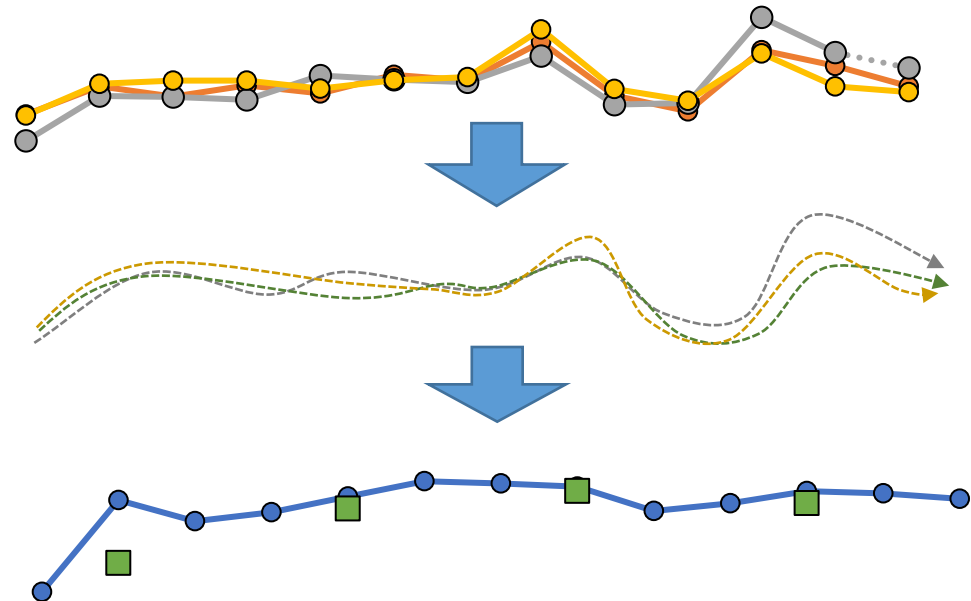
□ The idea for estimating the CTI macro

- CTI-macro estimates the monthly macro consumption trend, which is not obtained by quarterly GDP
- The trend is estimated with the Time Series Regression Model by using several monthly statistics related to consumption as explanatory variables, and a private final consumption expenditure of GDP as an objective variable

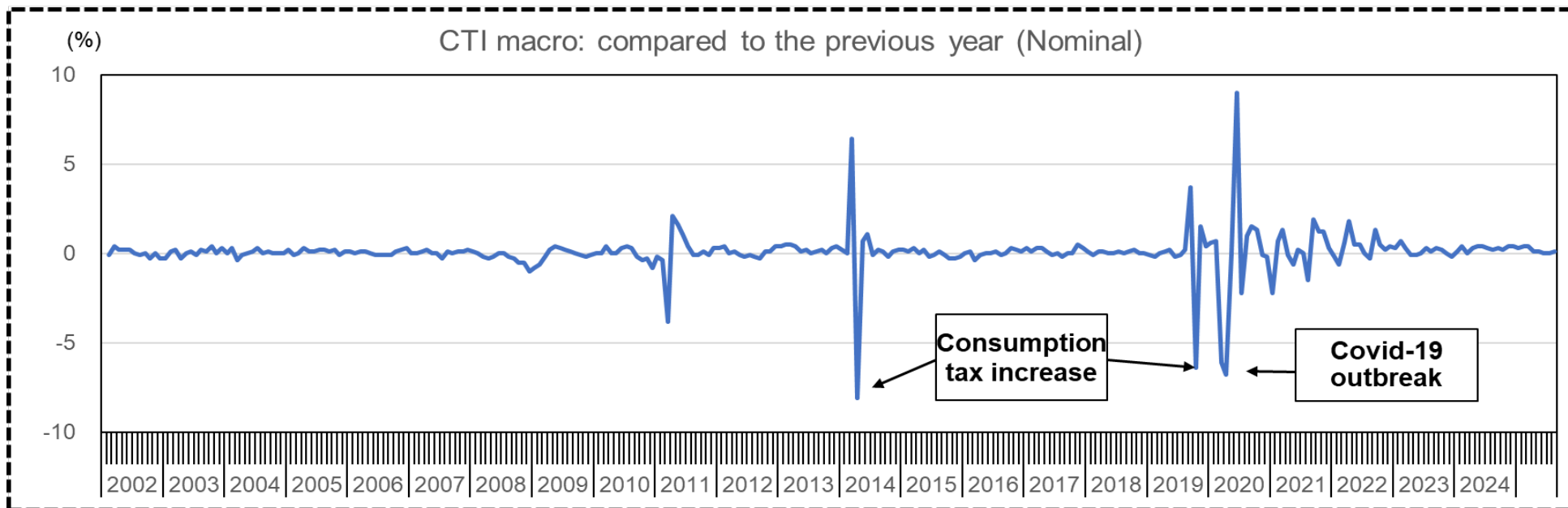
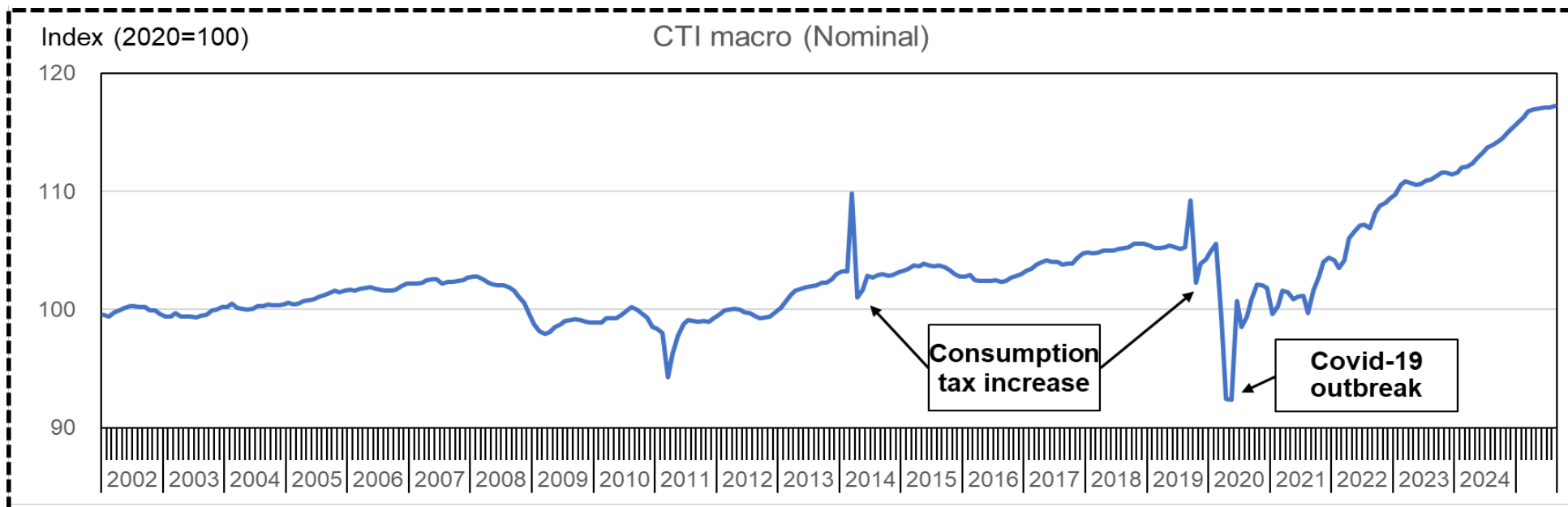
Time series of several monthly statistics related to consumption

Estimate background flow (explanatory variables) by several monthly statistics

Estimate the CTI-macro by using a private final consumption expenditure of GDP (■) as an objective variable



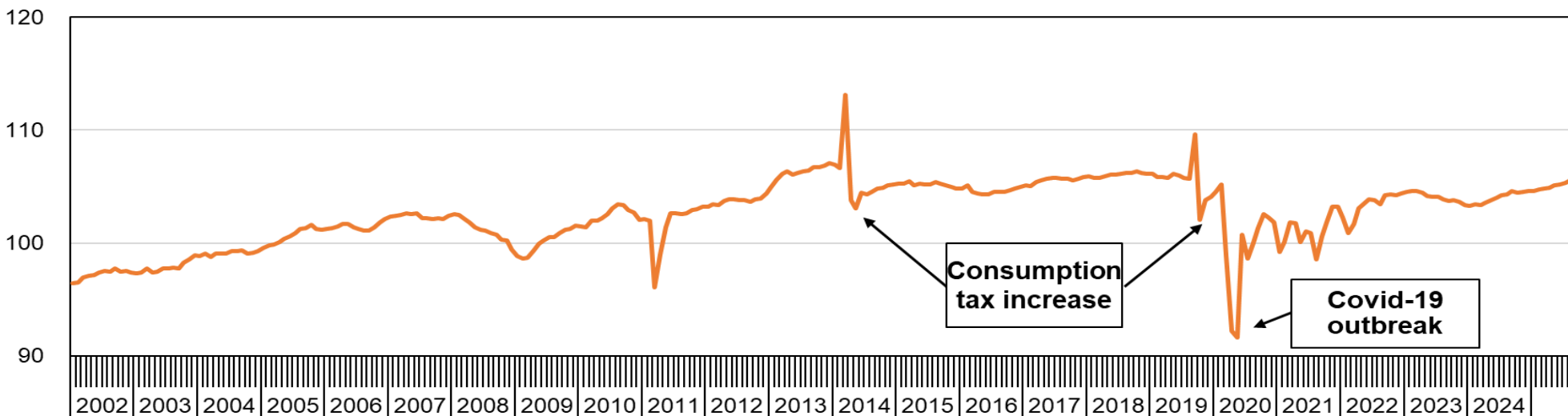
■ Data of the CTI macro



■ Data of the CTI macro

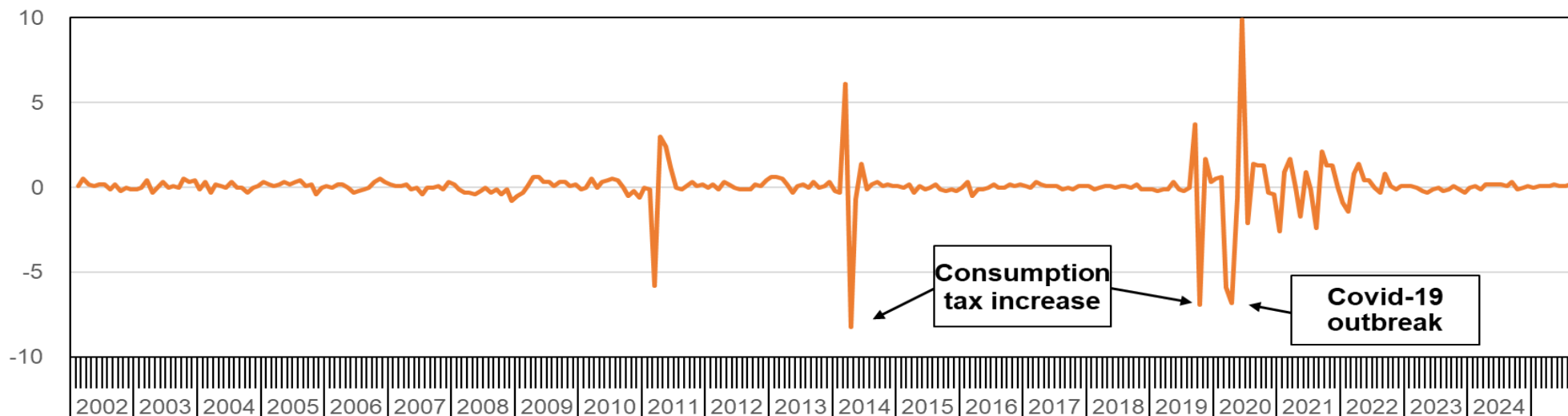
Index (2020=100)

CTI macro (Real)



(%)

CTI macro: compared to the previous year (Real)



□ An example of utilization of the CTI

Monthly Economic Report released by the Cabinet Office

[An excerpt from the Monthly Economic Report, Executive Summary (Sep. 2025)]

Private consumption shows movements of picking up

According to Quarterly Estimates of GDP for April-June 2025 (Second Preliminary Estimates), the real term of private consumption increased by 0.4% from the previous quarter. According to Consumption Trend Index (CTI), the real term of Total Consumption Trend Index (CTI macro) increased by 0.0% from the previous month in July.

As for each index, looking at the Consumption Trend Index (CTI), which comprises demand-side statistics, the real value of the Household Consumption Trend Index (CTI micro, total households) increased by 0.8% from the previous month in July. Looking at Current Survey of Commerce, which comprises supply-side statistics, the retail sales value decreased by 1.6% from the previous month in July.

□ Recent initiatives for the CTI improvement

SBJ has started initiatives to expand the contents of the reports, improve the accuracy of the CTI and release the reports earlier by collaborating with users, researchers and private companies

- CTI micro (From Jan 2024):
 - Started to release contribution by type of households, items
 - Started to release seasonally adjusted figures by 10 major groups
- CTI macro:
 - Review for the 2025 base revision
 - ✓ Improve the accuracy by eliminating the variation in leap year
 - ✓ Release the series excluding imputed rent
 - Review for the earlier release of the reports by using data owned by private company

(b) Improvement of microdata access

□ Background

- Researchers can use microdata of statistical surveys if they apply for use
- It took several months on average, however, to get approval of microdata access because staff members of each survey section check applications for microdata access in between their normal duties and need to communicate many times between related sections
- Microdata were provided to users by CD/DVD



(b) Improvement of microdata access

❑ Implementation plan for regulatory reform (Cabinet Decision, June 2023)

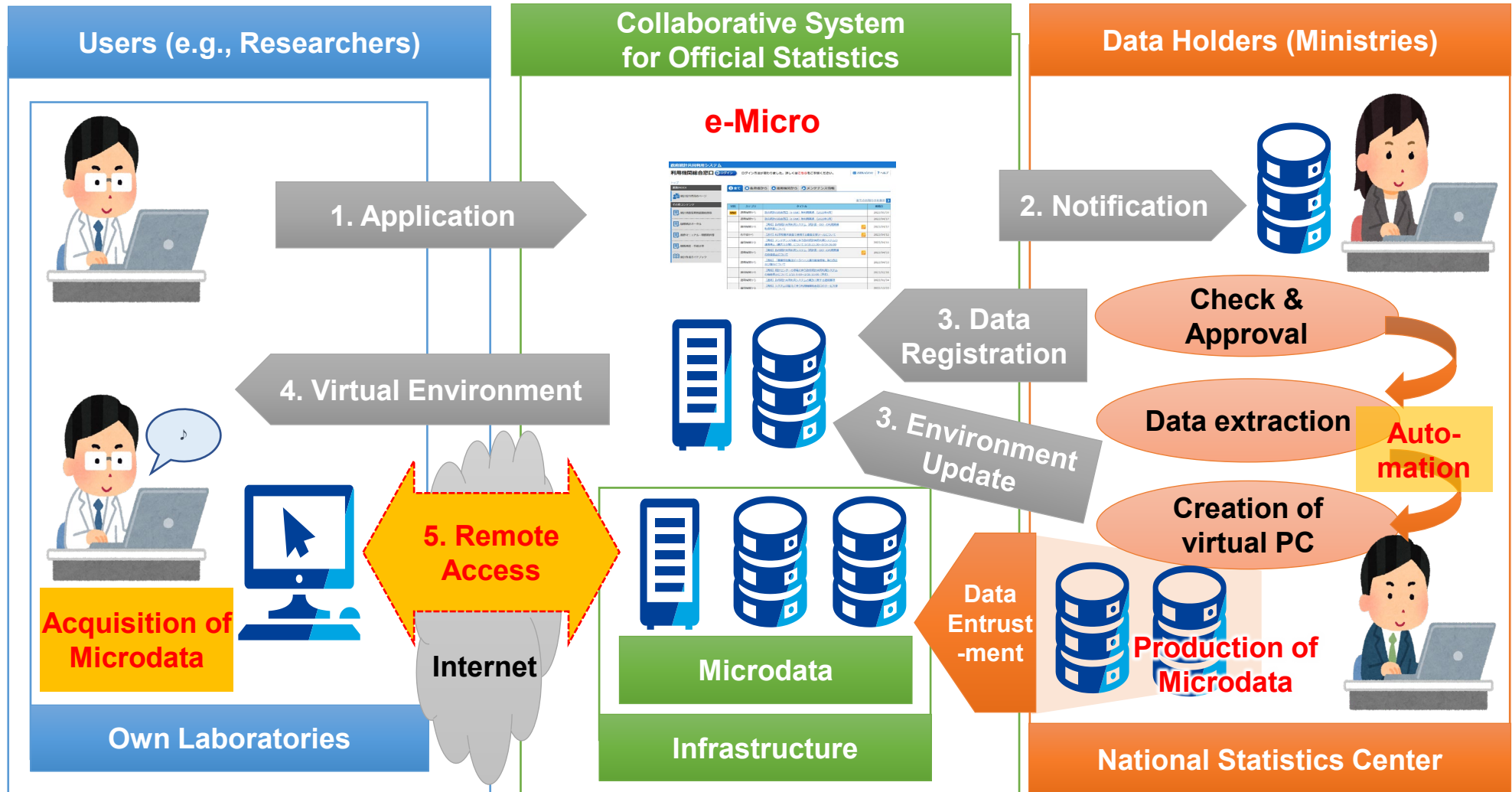
- To develop a system to standardize and streamline the approval process
- To enable the remote access to microdata by the end of FY 2025
- To shorten the length of time of approval process



SBJ has started a new project to develop a system

(b) Improvement of microdata access

● System (e-Micro): Launched in March 2025



(b) Improvement of microdata access

- Functions of e-Micro

- This system enabled researchers to
 - ✓ Apply microdata access smoothly through internet
 - ✓ Get approval in a short time by standardizing and streamlining the approval process and automating the production of microdata
 - ✓ Use microdata conveniently and safely by accessing remotely from their laboratories

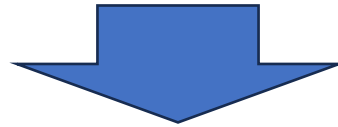
(Example of SBJ)

By centralizing and prioritizing the microdata access service, the process time to get approval of microdata access has shortened dramatically: from several months to less than a week!

3 Human Resource Development

□ The role of the SRTI

- To meet user needs, strengthening statistical literacy of the staff in national and local governments is essential



- Statistical Research and Training Institute (SRTI), as a specialized training institute for official statistics, provides training for them to develop statistical personnel who will play a central role in producing statistics and to improve statistical literacy for the use of statistics in policy-making, etc.
 - ✓ Lecturers include instructors of the SRTI, staff with extensive experience in survey department at the SBJ, and external university professors
 - ✓ In addition to group training, some courses are offered through online or live-streaming

□ Three options for training courses

Online training (e-learning)

Courses taken through e-learning on a specialized website
✓ All 14 courses are offered four times a year with same content

Online

Can be taken at any convenient time

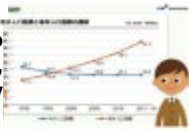
Animations are easy to understand

Self-paced e-learning program
Courses taken on a specialized website. Learn at any time during a period of approx. four weeks. Recommended for those having busy schedules with little time to study.

All 14 courses are offered four times a year

Easy to understand visually!

High reputation thanks to animations and subtitles, which allow for easy understanding



Live-streaming

Courses taken remotely in real time
✓ Catch-up streaming for two weeks after lecture

Live-streaming

Ask questions in real time via chat!

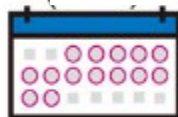
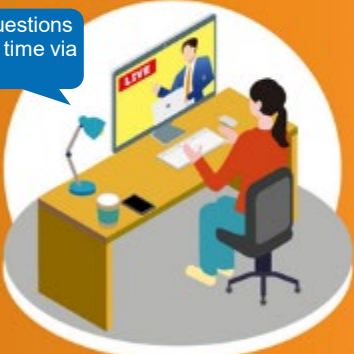
Real-time, remote program
Courses are taken remotely in real time from any place. Recommended for those unable to travel.

Nine courses are offered once a year, including a data science seminar (August) and training on indexes (September)

Catch-up streaming available

Trainees can view the lecture within two weeks

Approx. two weeks



Group training

Courses taken face-to-face in a classroom
✓ Accommodation is available for trainees coming from far away

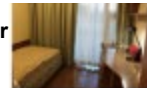
Group training

Ask questions with ease!

Group training courses offered in a classroom at the SRTI, Kokubunji, Tokyo. Recommended to those who want to learn in a classroom and ask questions directly to the instructor.

Comprehensive course is held twice a year
Other courses are held once a year

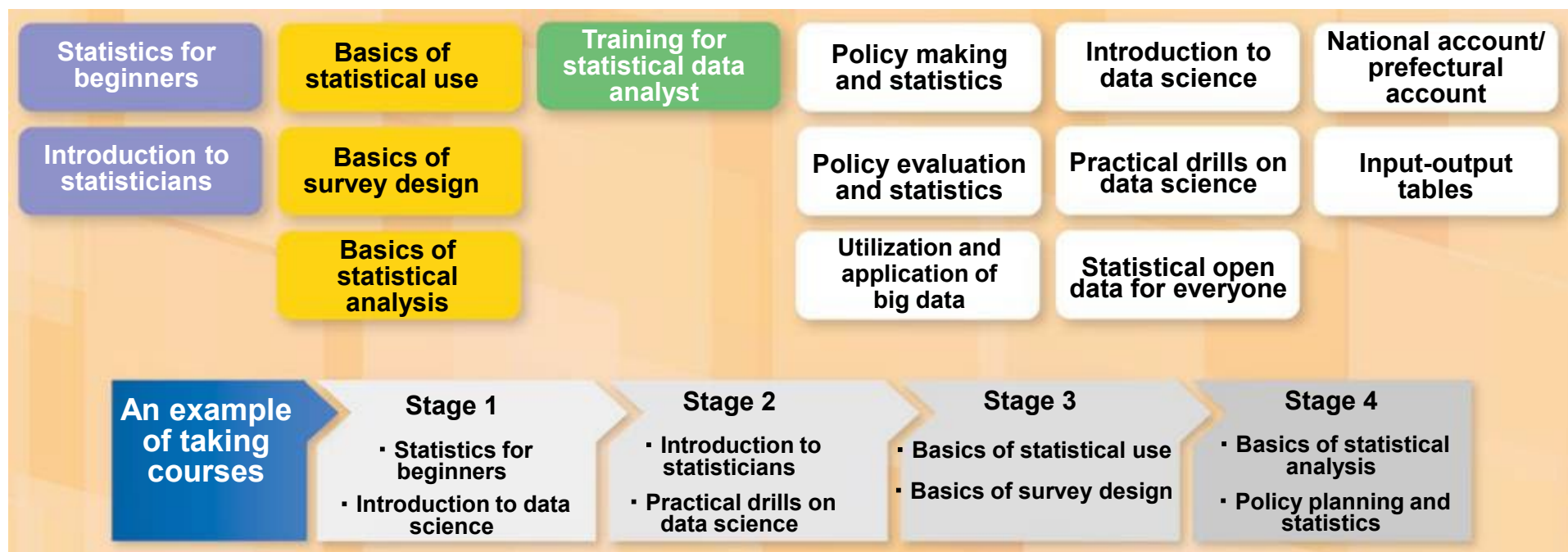
Accommodation is available
Trainees coming from far away can stay overnight.



□ Online training courses

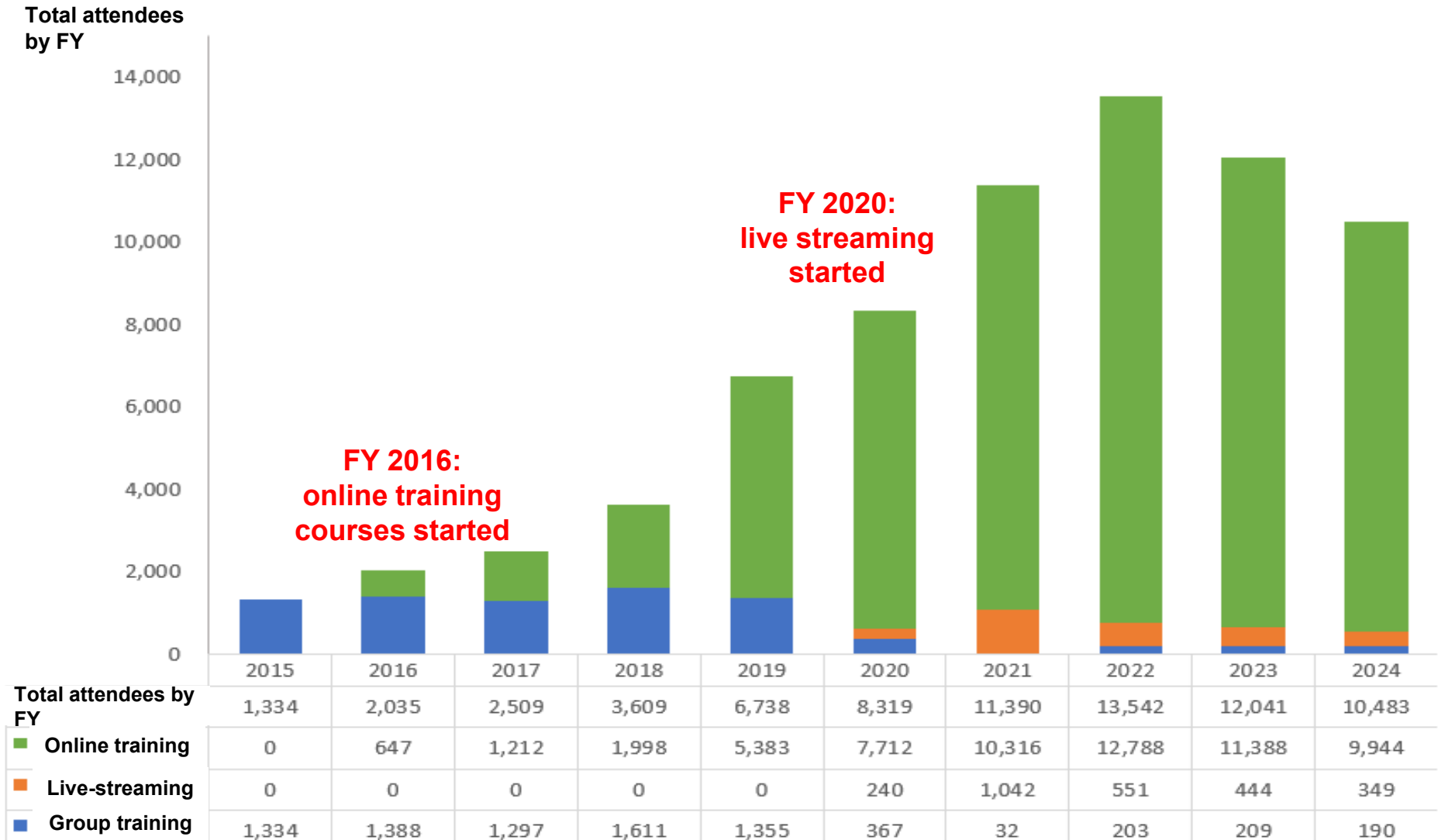
- 14 types of training courses are offered through online
- Lectures are held four times a year and can be taken sequentially depending on the level of the trainee

14 courses offered through online



□ The number of attendees in the last ten years

Since the launch of the online training, the number of attendees has increased dramatically!

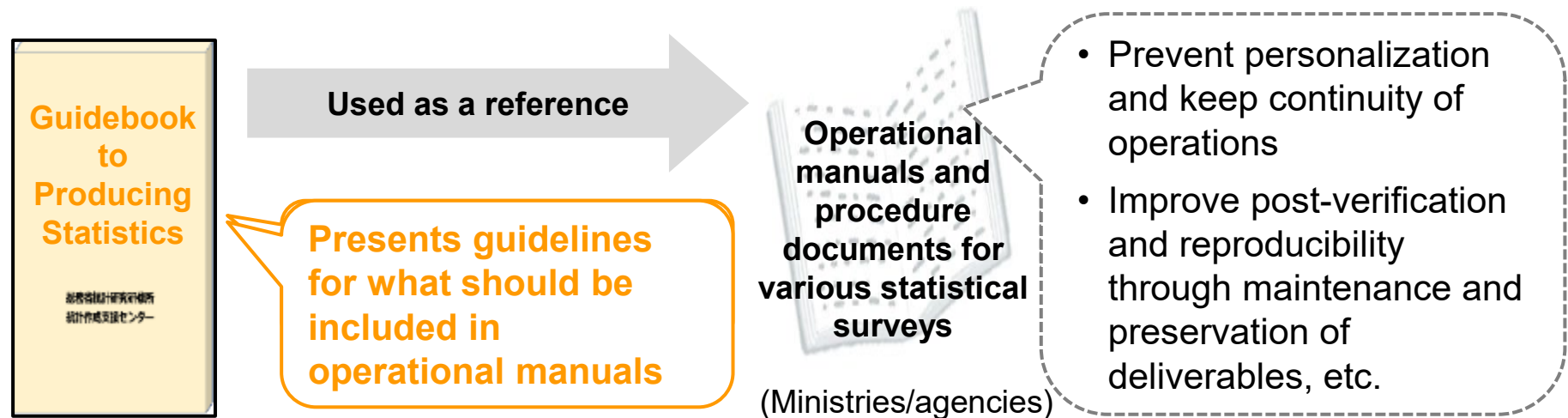


❑ Other efforts to develop specialized statistical staff

○ Creation of Guidebook to Producing Statistics

The “Master Plan concerning the Development of Official Statistics” has the goal of achieving comprehensive, high-quality official statistics

- To improve the quality of statistics, it is important to optimize the process for producing statistics
- To support the improvement of the statistics production process in ministries and agencies, SRTI prepared the Guidebook to Producing Statistics as a reference for the maintenance of operational manuals and procedure documents for producing statistics



❑ Other efforts to develop specialized statistical staff

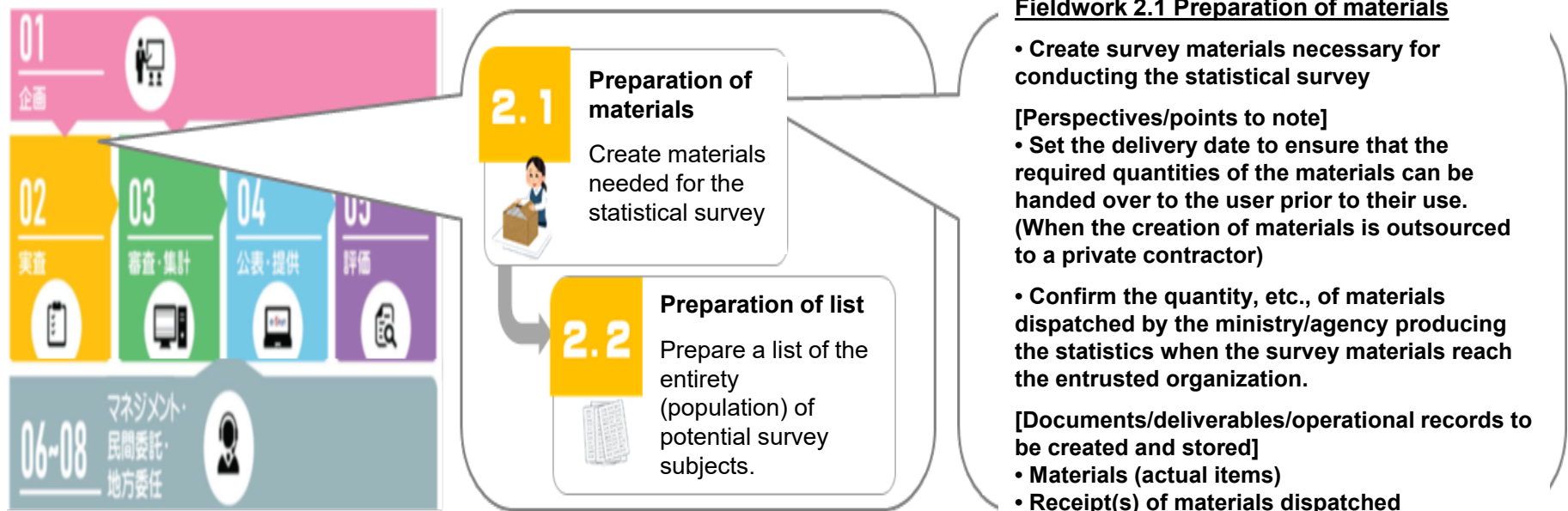
○ Contents of the Guidebook

◆ Visualization of the overall picture and flow of typical statistical production processes

By visualizing typical statistical production processes from planning and implementation of statistical surveys to tabulation and publication, the Guidebook shows not only the individual processes but also the connections between processes

◆ Detailed explanation of each process

For each process, the Guidebook provides an explanation of specific tasks and points to note, operational records to be created and stored, related regulations, etc.



❑ Other efforts to develop specialized statistical staff

[How to use the Guidebook]

- ✓ When inexperienced staff is placed in charge of a statistical survey

- No operational manual available...
- Have to plan a new survey but have no idea where to start

What should I do?



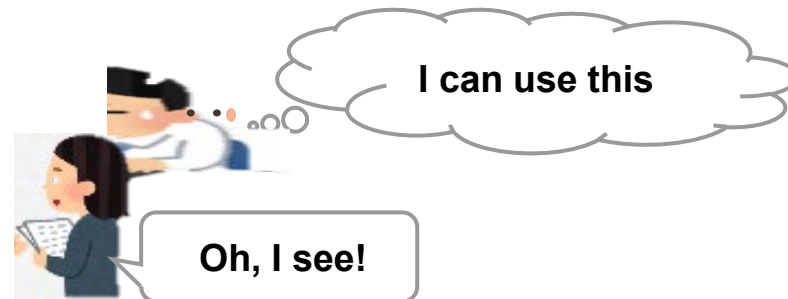
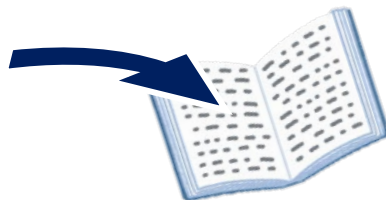
- ✓ When some operational manuals exist, but you want to enrich the contents

There are handover documents and system manuals, but I do not know the general procedures for producing statistics



In these cases ...

Describes the general workflow, tasks and points to note, related regulations, etc.



**Guidebook to
Producing Statistics**



Thank you for your attention!



Statistics Bureau of Japan