March 4, 2022
Statistics Bureau,
Ministry of Internal Affairs and Communications

Time-series data in accordance
with the revision of the 2020 Census-based benchmark population

For the Labour Force Survey, the benchmark population used for calculating the results was revised to the latest 2020 Census-based population estimates in January 2022 (released on March 4, 2022) for the Basic Tabulation, and will be revised in Jan.-Mar. 2022 for the Detailed Tabulation (scheduled to be released on May 13) [*].

Accordingly, the past data in materials released after the revision (excluding rate) will be revised to the retroactive or adjusted time-series data based on the 2020 Census-based (new criteria) benchmark population. The outline of the time-series data is as follows.

(*) Please refer to the following URL for the estimation method of the result of the Labour Force Survey.
   <https://www.stat.go.jp/english/data/roudou/pdf/samplerr.pdf>

1.   Outline of the time-series data
   (1) Basic Tabulation (whole Japan)
   (a) September 2020 to December 2021
      Retroactive adjustment data based on the new benchmark population. The quarterly average and annual average included in the period in question are similarly tabulated retroactively.

   (b) October 2015 to August 2020
      The gap between the retroactive adjustment data (new criteria) for September 2020 calculated as (a) above and the initially released data (old criteria) (new criteria - old criteria) equitably distributed to the initially released data (old criteria) of each month (data with intercensal-level adjustment). The annual average included in the period in question is calculated as an average of the monthly data with intercensal adjustment. However, the average for 2020 is calculated using data with intercensal-level adjustment from January to August and retroactive data from September to December. The details of the method of intercensal-level adjustment are explained below.

   (2) Basic Tabulation (by region) and Detailed Tabulation (whole Japan)
   (a) Oct. - Dec. 2020 to Oct. - Dec. 2021
      Retroactive adjustment data based on the new benchmark population. The annual average included in the period in question is similarly tabulated retroactively.

   (b) Oct. - Dec. 2015 to Jul. - Sep. 2020
      The gap between the retroactive adjustment data (new criteria) for Oct. - Dec. 2020 calculated as (a) above and the initially released data (old criteria) (new criteria - old criteria) equitably distributed to the initially released data (old criteria) of each month (data with intercensal-level adjustment). The annual average included in the period in question is calculated as an average of the quarterly data with intercensal adjustment. However, the average for 2020 is calculated using data with intercensal-level adjustment for Jan. - Mar. and for Jul. - Sep., and retroactive data for Oct. - Dec. The details of the method of intercensal-level adjustment are explained below.

2. Details of the method of intercensal-level adjustment

  (1) Basic Tabulation (whole Japan)

    (a) Gap between the old criteria (initially released data) and new criteria (retroactive adjustment data) is calculated for the results for September 2020.

    (b) The gap calculated in (a) [*1] is equitably distributed to values according to the old criteria from October 2015 to August 2020 based on the formula shown in (i) below to work out the monthly data with intercensal-level adjustment. The annual average is calculated by averaging the monthly data with intercensal-level adjustment. However, monthly data from September to December 2020 used for calculating the average for 2020 shall be the retroactive adjustment data based on new criteria.

$$Y_{t,(Intercensal-level\ adjustment)} = Y_{t,Old\ criteria} + \frac{m}{60}\Delta Y \dots\dots\dots\dots(i)$$

        Y : Value in each cell of the original table of the results (for example, number of employed persons)

        ΔY : Gap in the results for September 2020 (new criteria - old criteria)

        m : Months passed by setting October 2015 as m=1 and September 2020 as m=60

(*1) Gap between the retroactive data (new criteria) and initially released data (old criteria) in the major items of the Basic Tabulation (result of Sep. 2020)

[10 thousand persons]

	Population aged 15 years old and over	Employed person	Unemployed person	Not in labour force
Retroactive data (New criteria)	11111	6722	211	4171
Initially released data (Old criteria)	11085	6689	210	4179
New－Old	**+26**	**+33**	**+1**	**▲8**

  (2) Basic Tabulation (By Region) and Detailed Tabulation (Whole Japan)

    (a) The gap between the old criteria (initially released data) and new criteria (retroactive data) is calculated for the average result for Oct. - Dec. 2020.

    (b) The gap calculated in (a) [*2] is equitably distributed to values according to the old criteria from Oct. - Dec. 2015 to Jul. - Sep. 2020 based on the formula shown in (ii) below to work out the quarterly data with intercensal-level adjustment. The annual average is calculated by averaging the quarterly data with intercensal-level adjustment. However, data for Oct. - Dec. 2020 used for calculating the average for 2020 shall be the retroactive adjustment data based on new criteria.

$$Y_{t,(Intercensal-level\ adjustment)} = Y_{t,Old\ criteria} + \frac{q}{21}\Delta Y \dots\dots\dots\dots(ii)$$

        Y : Value in each cell of the original table of the results (for example, number of employed persons)

        ΔY : Gap in the average results for Oct. - Dec. 2020 (new criteria - old criteria)

        q : Quarters passed by setting Oct. - Dec. 2015 as q=1 and Oct. - Dec. 2020 as q=21

(*2) Gap between the retroactive data (new criteria) and initially released data (old criteria) in the major items of the Detailed Tabulation (result of Oct.-Dec. 2020)

[10 thousand persons]

	Population aged 15 years old and over	Employed person	Employee, excluding executive of company or corporation	Unemployed person	Not in labour force
Retroactive data (New criteria)	11086	6721	5676	220	4144
Initially released data (Old criteria)	11048	6679	5638	219	4150
New－Old	＋38	＋42	+38	＋1	▲6