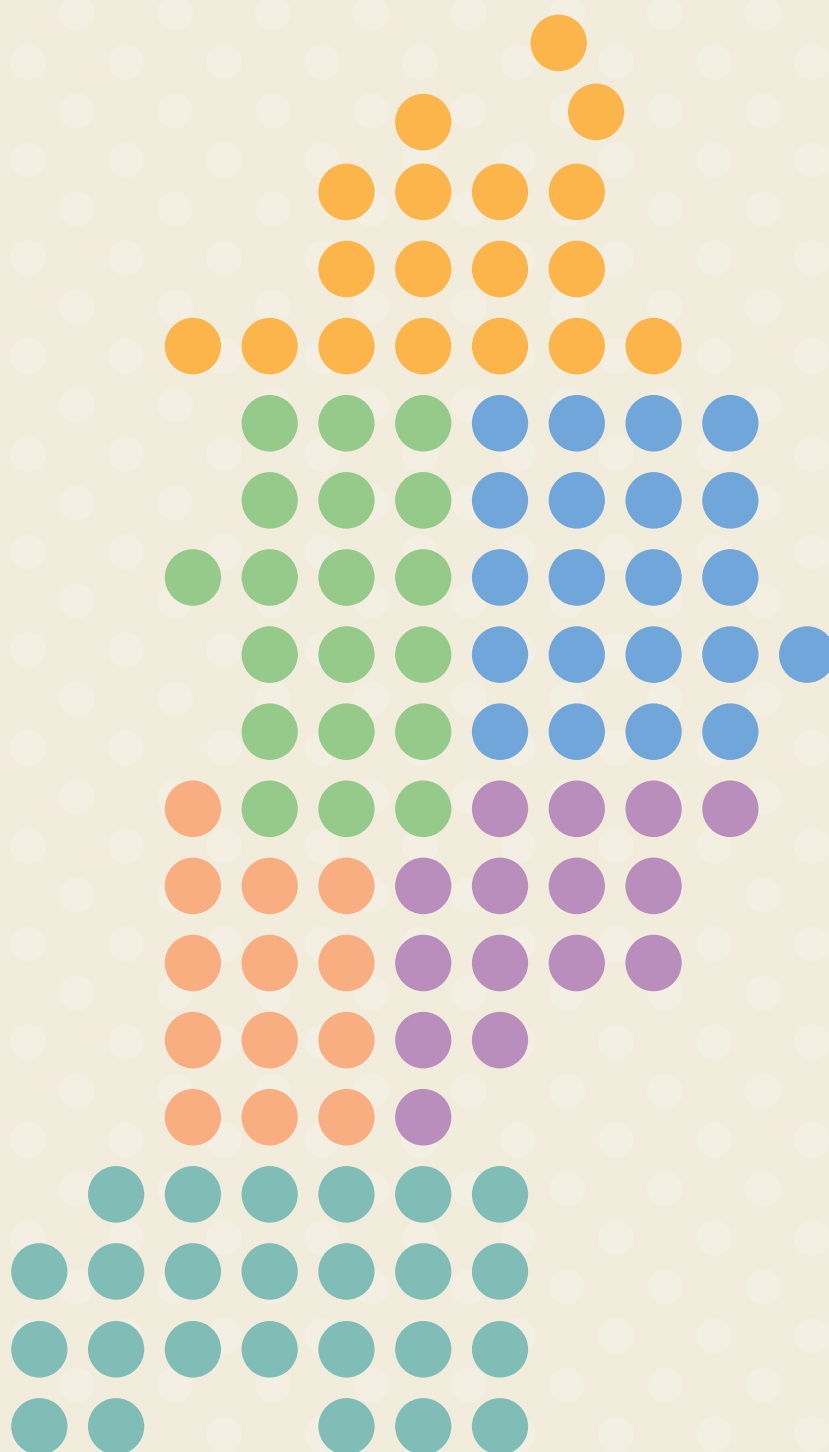


2021

ECONOMIC OVERVIEW OF TOHOKU REGION



Tohoku Bureau of
Economy, Trade and Industry

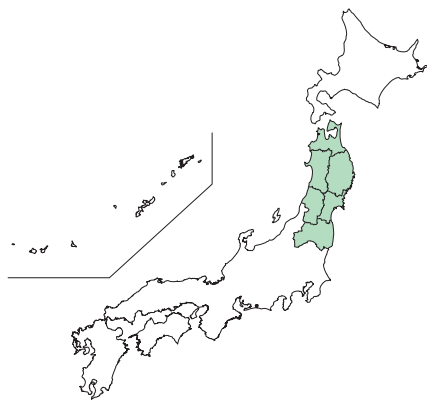
Table of Contents

1. Overview of the Tohoku Region	
(1) Overview of the Tohoku Region	2
(2) Positioning of Tohoku Shown in Major Economic Indicators	3
2. Economic Structure and Trends in the Tohoku Region	
(1) Gross Product	4
(2) Real Economic Growth Rate	5
(3) Population	6
(4) Demographics	7
(5) Number of Business Establishments (Private)	8
(6) Industrial Production	9
(7) Retail	11
(8) Private Sector Capital Spending	12
(9) Acquisition of Plant Locations	13
(10) Labor Force Population	14
(11) Employment	15
(12) Business Entry and Exit Rates	16
(13) Internationalization	
(i) Trade	17
(ii) Internationalization of Corporate Activities	19
(iii) International Arrivals/Departures and Foreign Residents	20
(14) Tourism	
(i) Domestic Tourism	21
(ii) International Inbound Tourism	22
3. Industrial Structure of the Tohoku Region	
(1) Manufacturing	
(i) Overview	23
(ii) National Share by Industry Sector	24
(iii) Shares of Industry Sectors by Year and Prefecture	25
(iv) Value of Manufactured Goods Shipped from Major Industry Sectors and Value-added Productivity by Region	26
(v) Manufacturing Companies Headquartered in the Tohoku Region	27
(vi) Industrial Property Rights	29
(2) Commerce	
(i) Overview	30
(3) Service Industry	31
(4) Agriculture, Forestry, and Fisheries	32

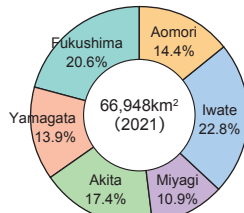
* Years in text and graphs throughout this document are displayed according to the Western calendar. In addition, when the name of the source material follows the Japanese calendar, the Western calendar is written in parentheses except for some parts.

* Due to rounding up/off, not all totals equal the sum of separate figures in tables and graphs throughout this document.

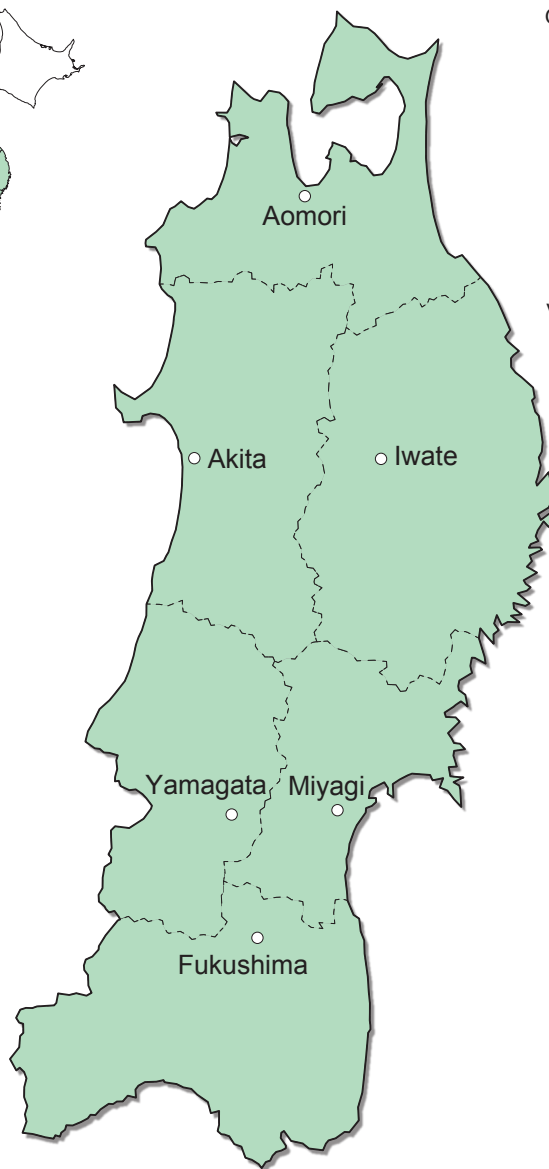
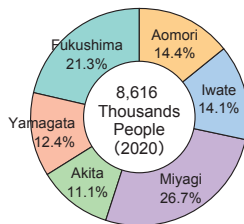
(1) Overview of the Tohoku Region



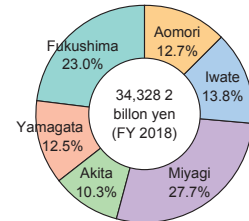
Land Area
(Share of national total 17.7%)



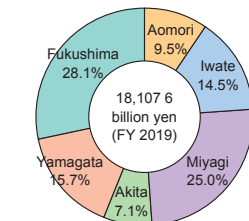
Population
(Share of national total 6.8%)



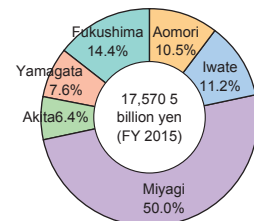
Gross Regional Domestic Product (GRDP)
(Share of national total 6.2%) ^{Note 4}



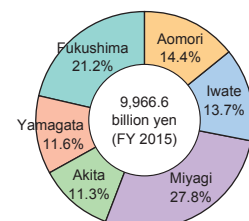
Value of Manufactured Goods Shipped
(Share of national total 5.6%)



Wholesale Annual Sales
(Share of national total 4.3%)



Retail Annual Sales
(Share of national total 7.2%)



Economic Indicators for the Tohoku Region

Item	Tohoku	Data and source	Item	Tohoku	Data and source
Major economic indicators			Major economic indicators		
Land Area (k m ²) As of April 1, 2021 ^{Note 1}	66,948	2021 National Land Area Survey of Prefectures and Municipalities, Geospatial Information Authority of Japan	Income per capita <Thousands of yen> (FY 2018)	2,833	2018 Annual Report on Prefectural Accounts, Official Documentation for the Cabinet Office and Each Prefecture
Population <Thousands> As of October 1, 2020	8,616	Population Est 2020, Ministry of Internal Affairs and Communications	No. of business establishments <Establishments> (As of June 1, 2016)	414,657	2016 Economic Census for Business Activity, Ministry of Internal Affairs and Communications and Ministry of Economy, Trade and Industry
No. of households <Thousands> As of October 1, 2020	3,508	Population Est 2020, Ministry of Internal Affairs and Communications	No. of employees <Thousands> (As of June 1, 2016)	3,726	2020 Census of Manufacture, Ministry of Economy, Trade and Industry
Nominal GRDP (Hundred millions of yen) (FY 2018)	343,282	2018 Annual Report on Prefectural Accounts, Official documentation for the Cabinet Office and Each Prefecture	Value of manufactured goods shipped <Hundred millions of yen> (2019)	181,076	2016 Economic Census for Business Activity, Ministry of Internal Affairs and Communications and Ministry of Economy, Trade and Industry
Primary industry ^{Note 2}	9,252		Wholesale sales value <Hundred millions of yen> (2015)	175,705	
Secondary industry ^{Note 2}	96,043		Retail sales value <Hundred millions of yen> (2015)	99,666	
Tertiary industry ^{Note 2}	237,432				
No. of municipalities As of August 1, 2021	77 cities 116 towns 34 villages	Number of Municipalities by Prefecture, Ministry of Internal Affairs and Communications			

Note 1: For the areas of prefectures with undefined boundaries, reference values recorded in the *National Land Area Survey of Prefectures and Municipalities* (Geospatial Information Authority of Japan) are used.

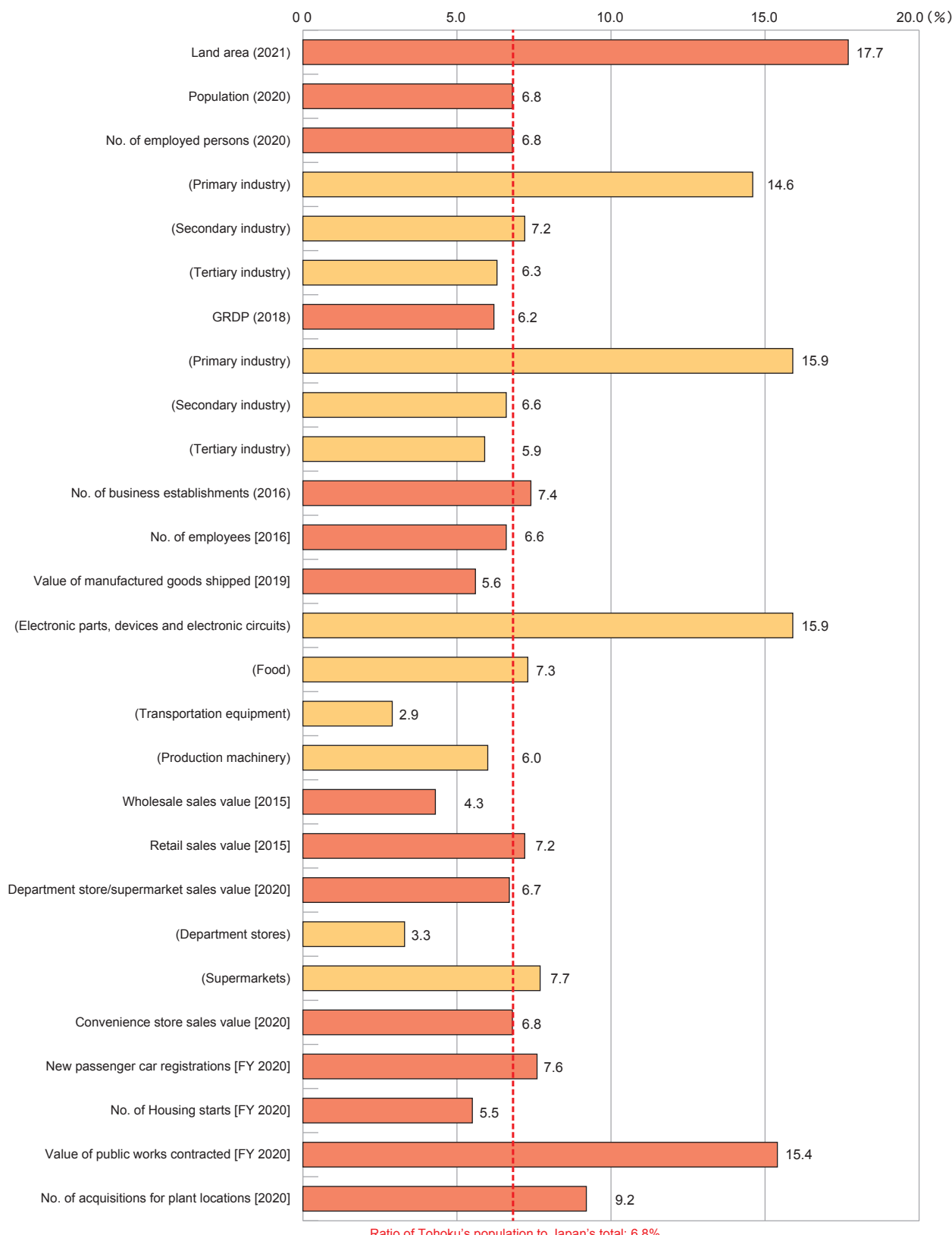
Note 2: The values by industry are before the addition and deduction of duties, customs and so forth on imported goods.

Note 3: The number of business establishments includes only the number of private business establishments.

Note 4: The national figures for calculating the national ratio of gross domestic product in the region were calculated based on the Gross Domestic Product by Economic Activities (calendar year) from the System of National Accounts (SNA) of Japan.

(2) Positioning of Tohoku Shown in Major Economic Indicators

Although Tohoku's population accounts for 6.8% of Japan's population, Tohoku is below the national level from the perspective of "gross regional domestic product (GRDP)" and "value of manufactured goods shipped." In the manufacturing industry, Tohoku's position is higher for "electronic parts, devices and electronic circuits."



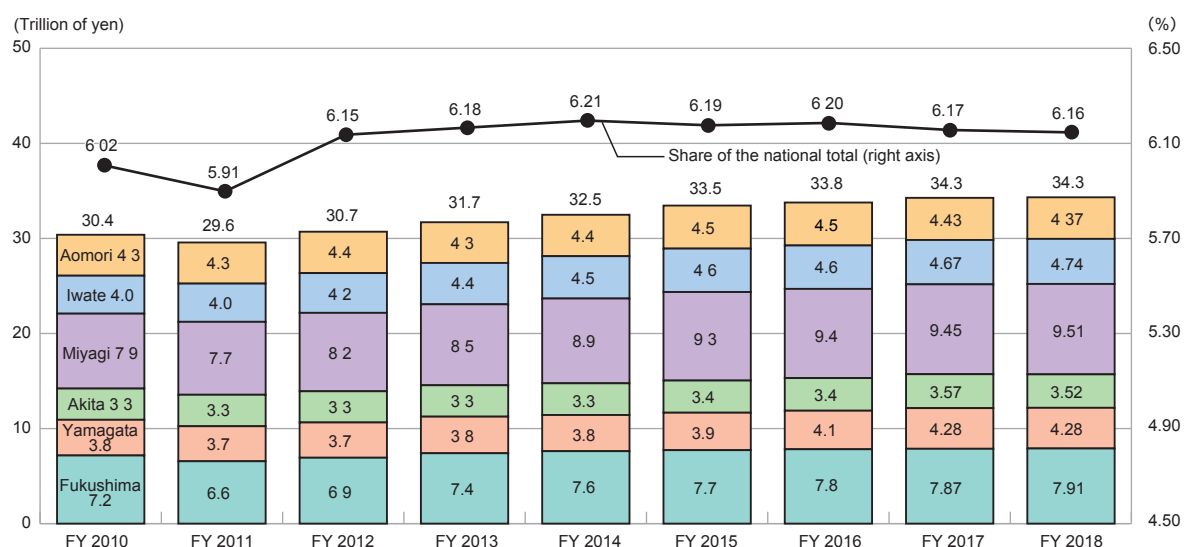
Note: The number of employees is based on the Labor Force Survey 2020 (Ministry of Internal Affairs and Communications)

(1) Gross Product

The Gross Regional Domestic Product (GRDP) is 34.3 trillion yen, or 6.16% of the national total.

- In fiscal year 2018, the Tohoku region's nominal GRDP was 34,328.2 billion yen, up 0.2% year-on-year, and 6.16% of the national total. In terms of Gross Product by prefecture, Iwate, Miyagi and Fukushima prefectures have increased from the previous year.

Changes in Nominal GRDP for Tohoku and its Prefectures and Tohoku's Share for Japan



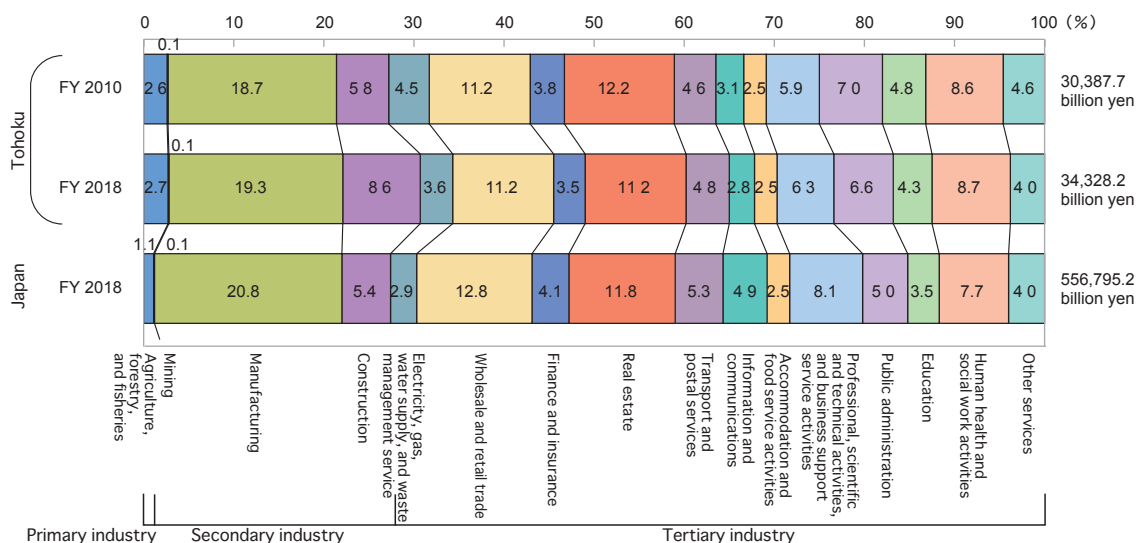
Note 1: With the System of Prefectural Accounts, the figures of previous fiscal years are amended retrospectively according to the estimates for the latest fiscal year.

Note 2: To calculate the ratio of the gross domestic product for Tohoku to the total gross domestic product for Japan, the figures for Japan are taken from the System of National Accounts (SNA) of Japan for FY 2019.

Source: Annual Report on Prefectural Accounts and Annual Report on National Accounts, Cabinet Office

- According to the breakdown of shares in fiscal year 2018 by industry classification, primary industries accounted for 2.7%, secondary industries for 28.0%, and tertiary industries for 69.3%. Share of the construction industry rose to 8.6%, up 2.8 percentage points compared to that of fiscal year 2010 before the Great East Japan Earthquake, which was due to recovery-related projects after the disaster.

Changes in the Share in Nominal GRDP between Industry Sectors



Note 1: The figures for Japan were calculated based on the Gross Domestic Product by Economic Activities (calendar year) from the System of National Accounts (SNA) of Japan for FY 2019.

Note 2: The shares are before the addition and deduction of duties, customs and so forth on imported goods.

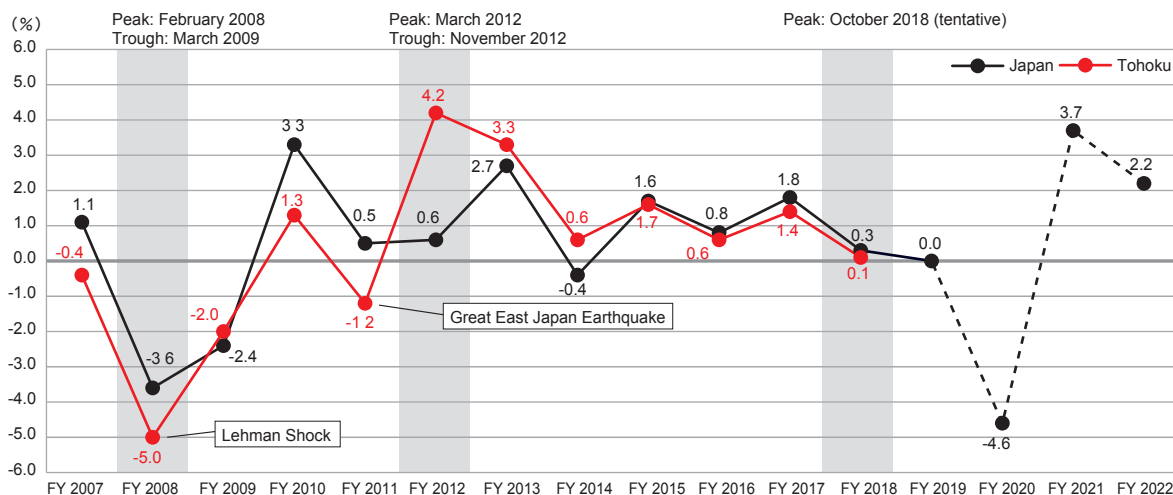
Source: Annual Report on Prefectural Accounts and Annual Report on National Accounts, Cabinet Office

(2) Real Economic Growth Rate

The real economic growth rate is 0.1%, showing positive growth for seven consecutive years.

- The Tohoku region's real economic growth rate in the fiscal year 2018 was 0.1% (cf. 0.3% for Japan), continuing the trend of positive growth for seven consecutive years, though it was below the rate for Japan.

Changes in the Real Economic Growth Rate in the Tohoku Region (chain-linking method)



Note 1: The above figures for Japan are taken from the System of National Accounts of Japan for FY 2019 (benchmark year = 2011, 2008 SNA).

Note 2: Japan's figures for fiscal years 2020, 2021 and 2022 are taken from the *Mid-Year Economic Projection for FY 2021* released by the Cabinet Office on July 6, 2021.

Note 3: The figures for the Tohoku region are estimated based on the benchmark year of 2011 using the chain-linking method (chain-linking of price indices based on the calendar year of 2011).

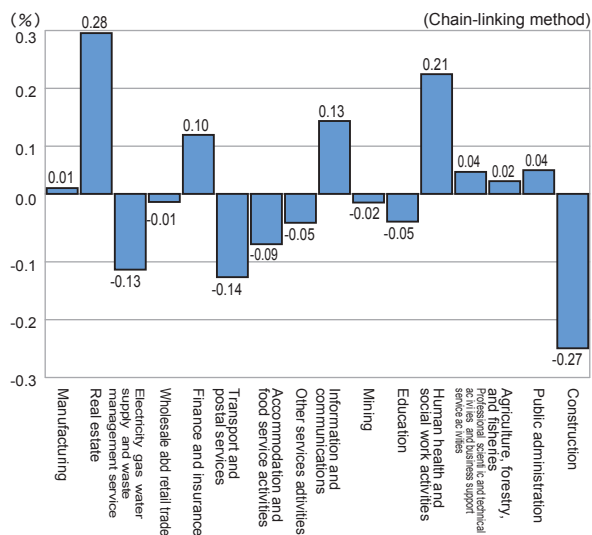
Note 4: The figures for the Tohoku region from FY 2019 onward are not indicated because the six Tohoku prefectures have not yet released their datasets publicly.

Note 5: Business-cycle peaks and troughs are based on the Cabinet Office's reference dates for the business cycle.

Source: *Annual Report on Prefectural Accounts and Annual Report on National Accounts*, Cabinet Office

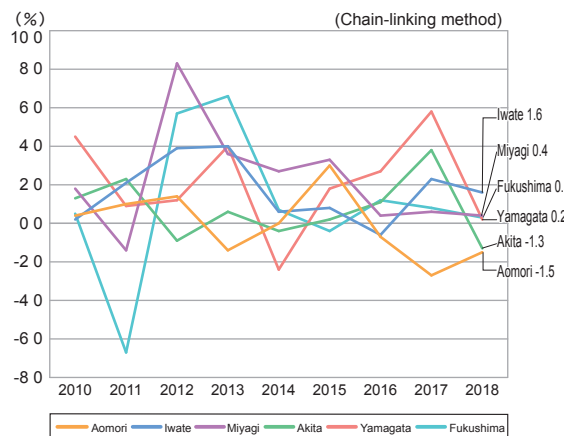
- With respect to the level of contribution between different economic activities (by industrial sector) to the real economic growth rate for fiscal year 2018, real estate made a positive contribution of 0.28%; human health and social work activities, with a positive contribution of 0.21%; while the construction industry had a negative contribution of 0.27%.
- Looking at the real economic growth rate by prefecture in the Tohoku region, Iwate, Miyagi, Yamagata, and Fukushima experienced positive growth, while Aomori and Akita had negative growth. When compared to the fiscal year 2017, the growth rate turned from positive to negative in 5 prefectures except for Aomori such as Akita whose growth turned negative from positive in the previous year. On the other hand, Aomori showed a slightly better rate although it was still negative growth.

Contribution to the Real Economic Growth Rate in FY 2018 by Economic Activity



Source: *Annual Report on Prefectural Accounts*

Changes in Real Economic Growth Rate by Prefecture

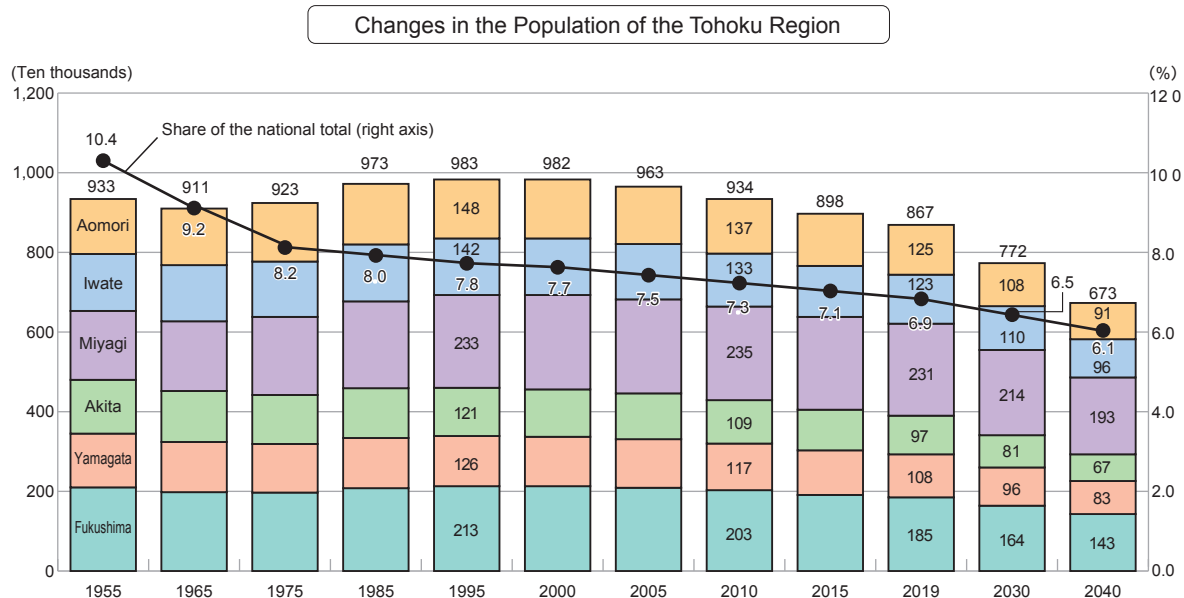


Source: *Annual Report on Prefectural Accounts*

(3) Population

The productive-age population in the Tohoku region is projected to shrink by 32.7% in 2040 compared to 2019.

- In 2019, the Tohoku region had a population of 8.67 million, accounting for 6.9% of the national population (126.17 million). Tohoku's population started to decrease after peaking in 1995, and is projected to decrease 22.3% to 6.73 million in 2040 compared to 2019, accounting for 6.1% of the national population.



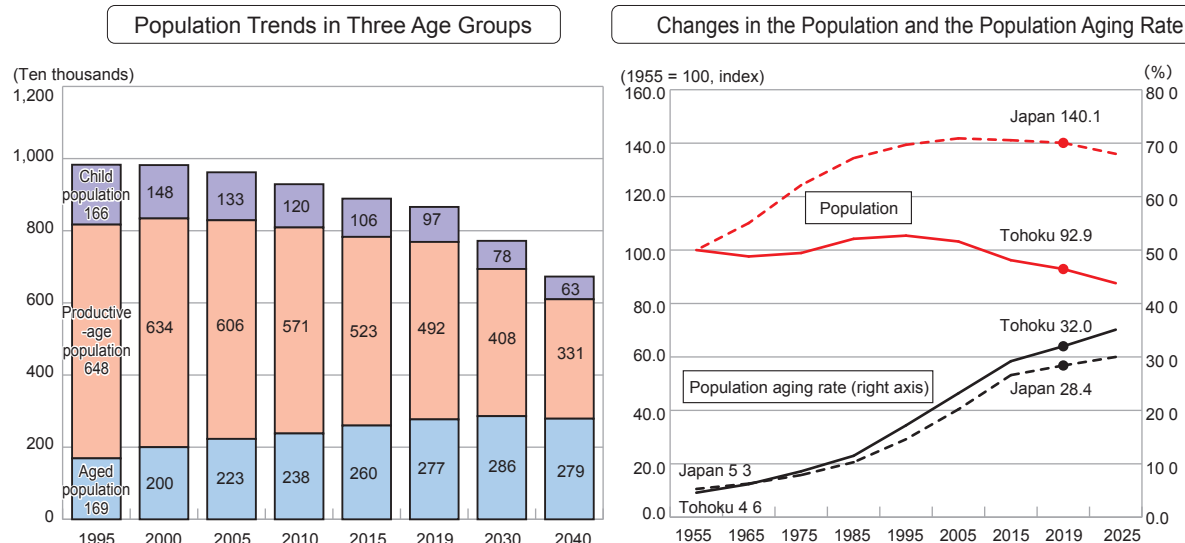
Note: The above estimates are based on medium assumptions of births and deaths.

Source: 1955-2015: *Population Census of Japan*, the Statistics Bureau of the Ministry of Internal Affairs and Communications

2019: *Population Estimates*, Ministry of Internal Affairs and Communications

2030 and beyond: *Population Projections by Prefecture*, the National Institute of Population and Social Security Research (Projection from March 2018)

- In terms of population changes in three age groups between 2019 and 2040, the productive-age population (aged 15-64) and the child population (aged 0-14) are projected to decrease by 1.61 million and 340,000 respectively, while the aged population (aged 65 or older) is projected to increase by 20,000. The decrease in population along with the declining birth rate and aging population is advancing in the Tohoku region ahead of the national average.



Note: The people whose age is unknown are distributed proportionally in 2019 and beyond.

Source: 1955-2015: *Population Census of Japan*, the Statistics Bureau of the Ministry of Internal Affairs and Communications

2019: *Population Estimates*, Ministry of Internal Affairs and Communications

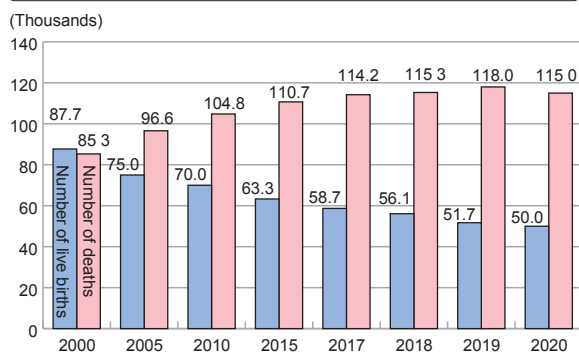
2025 and beyond: *Population Projections by Prefecture*, the National Institute of Population and Social Security Research (Projection from March 2018)

(4) Demographics

Tohoku's population is shrinking with natural population reduction of 65,000 and net migration loss decreased to 21,300.

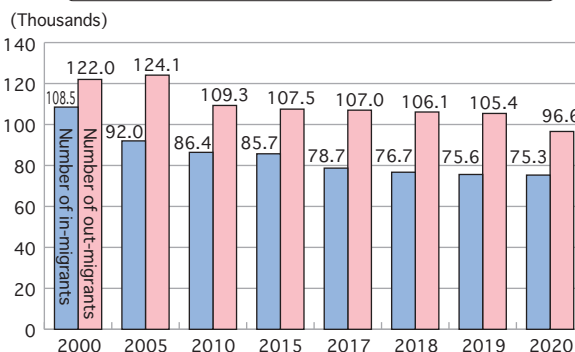
- In 2020, the number of live births in the Tohoku region was 50,000, down 1,800 year-on-year, while there were 115,000 deaths, up 3,000 year-on-year. As a result, the natural population reduction decreased to 65,000 from 66,200 in 2019.
- In 2020, 75,300 people moved into the Tohoku region, down 300 people year-on-year, while 96,600 people moved out of the Tohoku region, down 8,800 people year-on-year. As a result, Tohoku's net migration loss (in-migrants minus out-migrants) decreased from 29,800 in 2019 to 21,300.
- Among the 143,100 people who moved out of any prefecture in the Tohoku region, 46,500 people moved into another prefecture within the Tohoku region, and 96,600 people moved out of the region, showing that about 70% of the people moving left the Tohoku region. The destination of most of the people moving within the Tohoku region was Miyagi Prefecture.

Changes in the Number of Live Births and Deaths



Source: Annual Report on Demographic Statistics, Ministry of Health, Labor and Welfare

Changes in In-migrants and Out-migrants



Note: The number of in-migrants/out-migrants does not include people who moved within the Tohoku region.

Source: Annual Report on the Internal Migration in Japan Derived from the Basic Resident Registers, Ministry of Internal Affairs and Communications

Number of Migrants within and into/out of the Tohoku Region (2020)

		Prefecture/region (migration destination)									Out-migrants total
		Aomori	Iwate	Miyagi	Akita	Yamagata	Fukushima	Inside Tohoku total	Outside Tohoku total		
									Tokyo area only		
Prefecture/region (migration origin)	Aomori		1,650	3,110	828	316	513	6,417	14,728	8,666	21,145
	Iwate	1,708		4,598	839	455	673	8,273	11,257	6,939	19,530
	Miyagi	2,033	3,277		1,669	2,763	4,006	13,748	30,494	18,261	44,242
	Akita	784	1,047	2,324		497	460	5,112	8,407	5,316	13,519
	Yamagata	282	403	3,411	433		1,051	5,580	9,591	5,917	15,171
	Fukushima	518	674	4,875	363	973		7,403	22,125	13,130	29,528
	Inside Tohoku total	5,325	7,051	18,318	4,132	5,004	6,703	46,533	96,602	58,229	143,135
	Outside Tohoku total	11,088	8,612	25,760	6,387	6,940	16,547	75,334			
	Tokyo area only	6,026	4,860	13,612	3,793	3,820	8,993	41,104			
In-migrants total		16,413	15,663	44,078	10,519	11,944	23,250	121,867			

Source: Annual Report on the Internal Migration in Japan Derived from the Basic Resident Registers, Ministry of Internal Affairs and Communications

(5) Number of Business Establishments (Private)

Private business establishments in the Tohoku region represent 7.4% of the national total, while the number of employees accounts for 6.6% of the national total.

- In 2016, the Tohoku region had 414,657 private business establishments or 7.4% of the national total of 5,578,975 business establishments (7.3% in 2014). The number of the establishments decreased 2.3% from the previous 2014 survey. Akita, Aomori and Yamagata, in particular, saw significant decreases of 3.4%, 3.0% and 3.0% respectively.
- The total number of employees in the Tohoku region was 3,726,422, down 0.9% from the previous 2014 survey.

Numbers of Private Business Establishments and Employees by Prefecture

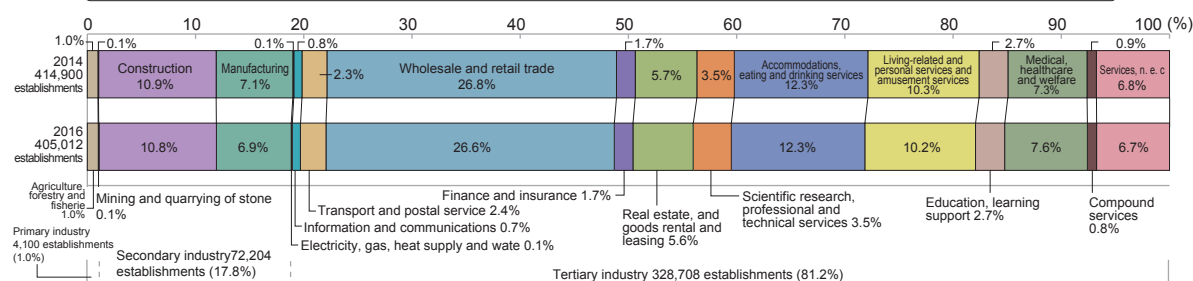
	No. of private business establishments				No. of employees			
	2014	2016	Comparison to 2014 (%)	Comparison to national total (%)	2014	2016	Comparison to 2014 (%)	Comparison to national total (%)
Aomori	60,866	59,069	-3.0	1.1	508,770	498,988	-1.9	0.9
Iwate	60,543	59,451	-1.8	1.1	536,313	525,264	-2.1	0.9
Miyagi	103,505	102,026	-1.4	1.8	1,010,795	1,006,886	-0.4	1.8
Akita	51,156	49,432	-3.4	0.9	418,534	413,719	-1.2	0.7
Yamagata	58,292	56,551	-3.0	1.0	480,627	475,435	-1.1	0.8
Fukushima	89,971	88,128	-2.0	1.6	803,372	806,130	0.3	1.4
Tohoku	424,333	414,657	-2.3	7.4	3,758,411	3,726,422	-0.9	6.6
Japan	5,779,072	5,578,975	-3.5	100.0	57,427,704	56,872,826	-1.0	100.0

Note: The number of private business establishments includes those whose business details are unclear.

Source: 2014 Economic Census for Business Frame and 2016 Economic Census for Business Activity, MIC and METI

- Looking at the breakdown of private business establishments by industry (major group category), wholesale and retail trade had the largest share at 26.6%, followed by accommodations, eating and drinking services at 12.3% and construction at 10.8%. The tertiary industry occupied a significant share at 81.2%. In comparison to 2014, medical, healthcare and welfare increased its share by 0.3 percentage points, while manufacturing and wholesale and retail trade each decreased their shares by 0.2 percentage points.

Changes in the Breakdown of Private Business Establishments by Industry (Major Group Category)

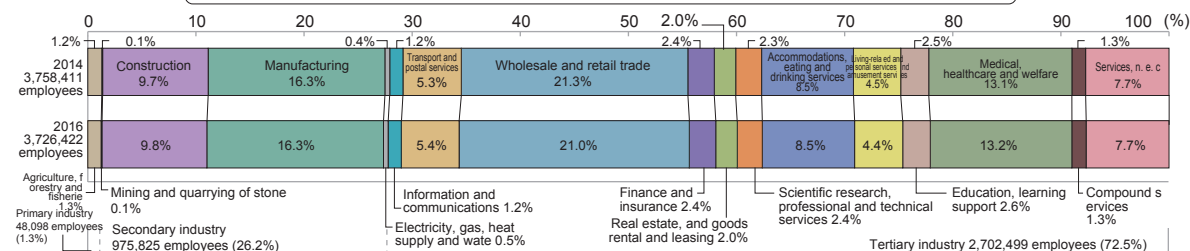


Note: The number of business establishments by industry includes only those for which numerical data for necessary items were obtained.

Source: 2014 Economic Census for Business Frame and 2016 Economic Census for Business Activity, MIC and METI

- In 2016, the number of employees in the Tohoku region was 3,726,422 or 6.6% of the national total (6.5% in the 2014 survey). The breakdown of employees in private business establishments by industry (major group category) was 1.3% for the primary industry, 26.2% for the secondary industry and 72.5% for the tertiary industry. In comparison to 2014, the employees in wholesale and retail trade decreased by 0.3 percentage points and those in living-related and personal services and amusement services by 0.1 percentage points.

Changes in the Breakdown of Employees by Industry (Major Group Category)



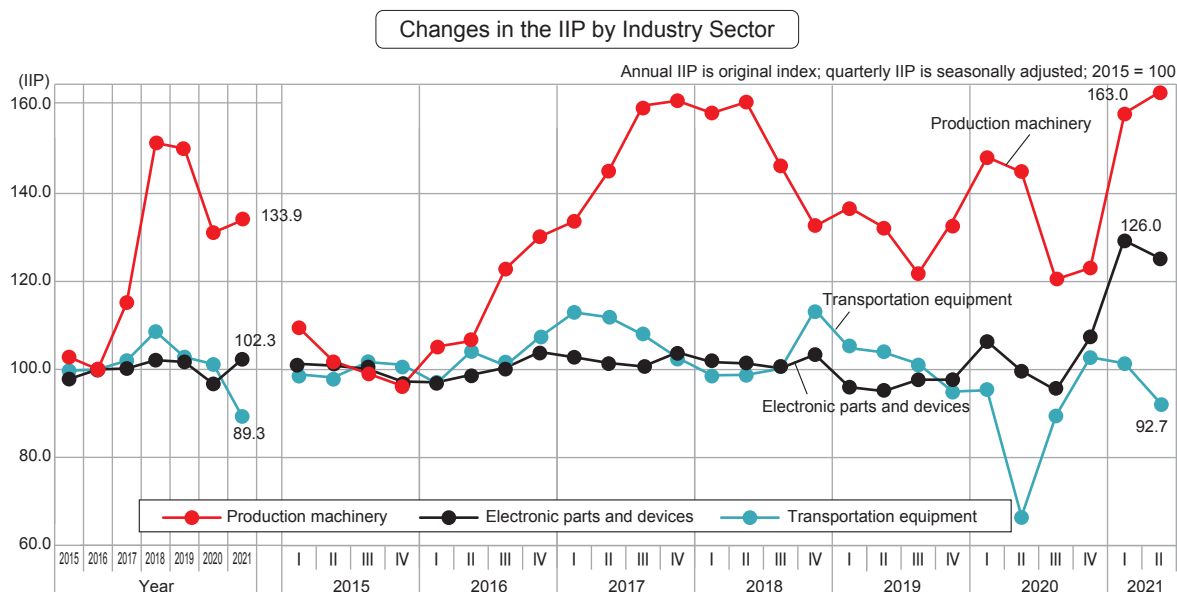
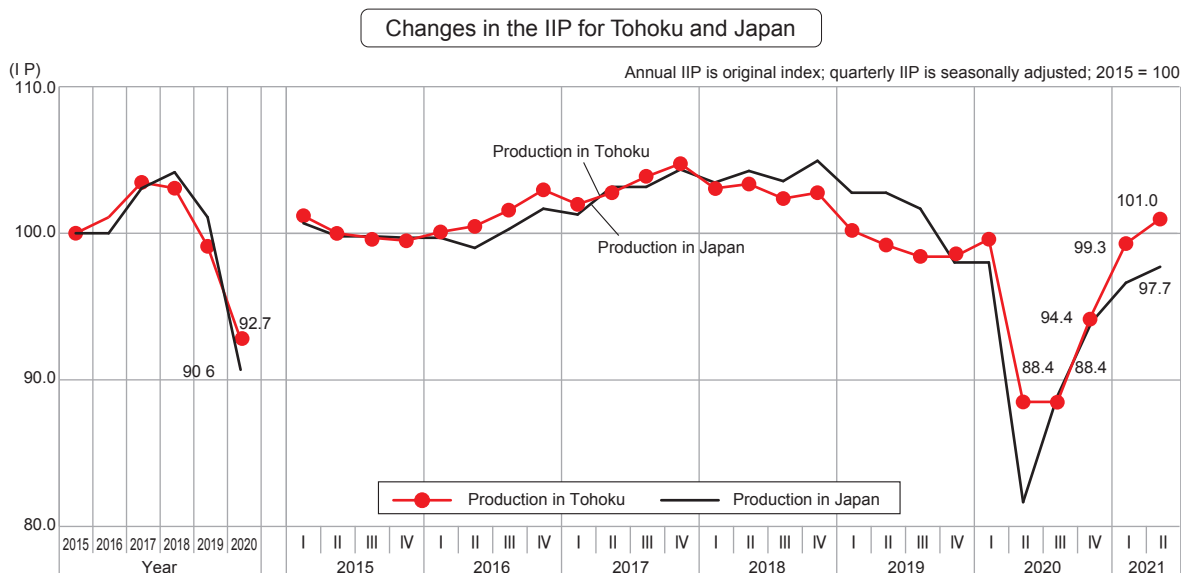
Note: The number of employees by industry for 2014 is as of July 1, 2014, and that for 2016 is as of June 1, 2016.

Source: 2014 Economic Census for Business Frame and 2016 Economic Census for Business Activity, MIC and METI

(6) Industrial Production

Industrial production shows trends of restoring growth from decline.

- The Tohoku Region's Index of Industrial Production (IIP) in 2020 shows a decrease of 6.5% year-on-year to 92.7 (2015 = 100).
- The quarterly IIP in 2020 (seasonally adjusted: 2015 = 100) in the 1st quarter increased 1.2% quarter-on-quarter to 99.6, owing to the electronic component and device industries, where the moss-type semiconductor integrated circuits (memory) and connectors, etc. increased. The IIP in the 2nd quarter decreased 11.2% quarter-on-quarter to 88.4 owing to the transportation machinery industry, etc., where passenger cars and engine parts decreased. The IIP in the 3rd quarter remained flat at 0.0% quarter-on-quarter to 88.4, while the transportation machinery industry, etc. rose slightly, the production machinery industry, etc. declined. In the 4th quarter, sales of fixed capacitors and connectors increased by 6.8% quarter-on-quarter owing to the increase in the electronic parts and devices industry, etc. to 94.4, showing recovery from the decline in 2020 as a whole.
- Looking at the production index for the first quarter of 2021, it increased by 5.2% from the previous quarter to 99.3 due to the increase in moss-type semiconductor (memory), etc. in the electronic parts and devices industry. In the second quarter, IIP increased 1.7% quarter-on-quarter to 101.0 due to an increase in automobile tires and lithographic printing (offset printing).

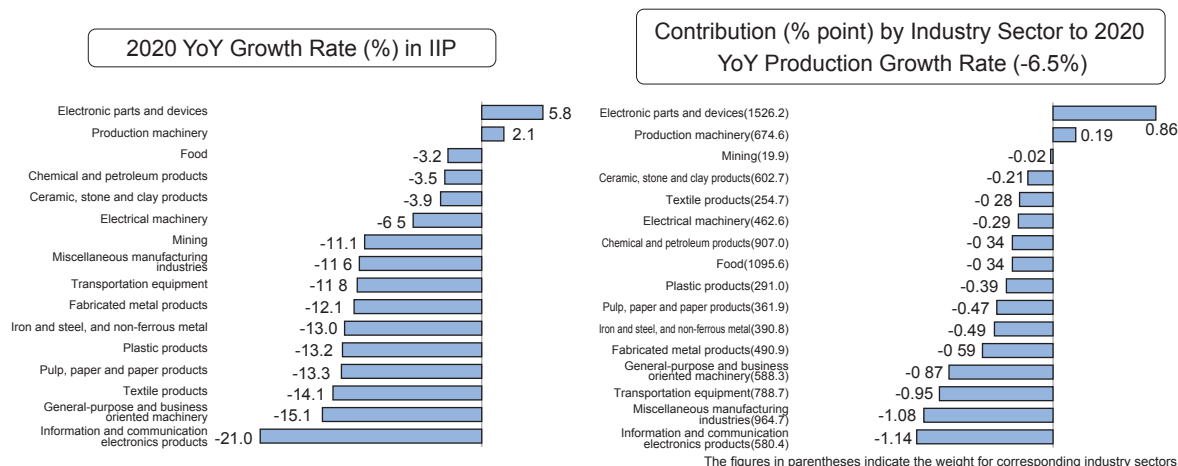


Note 1: The IIP for Japan was prepared by the Ministry of Economy, Trade and Industry, while the IIP for Tohoku was prepared by the Tohoku Bureau of Economy, Trade and Industry.

Note 2: The IIPs for both Japan and Tohoku were based, as reference, on 2015 standards. The annual revision was applied to the IIPs of both Tohoku and Japan for the period from January 2020.

Source: *Index of Industrial Production (IIP)*; METI and Tohoku Bureau of Economy, Trade and Industry

- Looking at the year-on-year growth rate of the production index in 2020 by industry, the industries that increased were the electronic parts and device industry (up 5.8%) and the production machinery industry (up 2.1%). The industries that declined were the information and communication machinery industry (down 21.0%) and the general-purpose and commercial machinery industry (down 15.1%).
- When looking at the level of contribution by the industrial sector to the year-on-year IIP growth rate of minus 6.5% for 2020, a negative contribution to the IIP was made by the electronics and communication machinery industry (-1.14) (where notebook PCs and desktop PCs decreased), and automobile tires, etc. The decrease in other industries (-1.08) contributed to the overall decline. On the other hand, the electronic parts and device industry (0.86), where the number of moss-type semiconductor-integrated circuits (memory) and connectors increased, and the production machinery industry (0.19), where the number of semiconductor manufacturing equipment increased, increased.

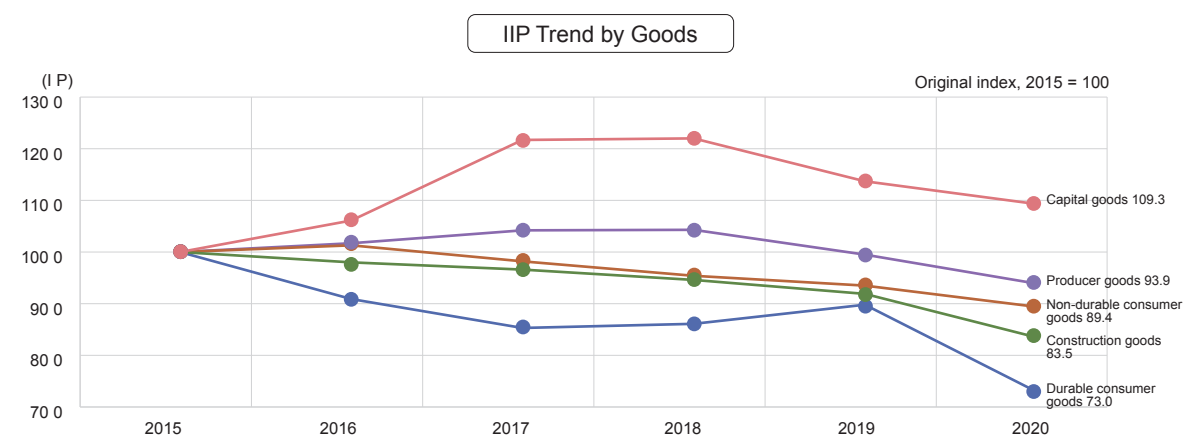


(Note) Share: Composition ratio of each industry to the whole (Industrial production = 10000)

Contribution: Breakdown of increase / decrease rate of production by industry. It indicates the level of impact that is made on the entire industrial production through the increase or decrease of production in each industrial sector

Source: Tohoku Bureau of Economy, Trade and Industry, Indices of Industrial Production

- Looking at the production index for 2020 by goods, capital goods fell 3.9% year-on-year to 109.3. Cameras, lathes, printing machines, etc. contributed to the decline. Construction goods fell 9.1% year-on-year to 83.5. Other plastic products, ready-mixed concrete, ordinary plywood, etc. contributed to the decline. Durable consumer goods fell 18.7% year-on-year to 73.0. Notebook PCs, desktop PCs, automobile tires, etc. contributed to the decline. Non-durable consumer goods fell 4.4% year-on-year to 89.4. Beer, cosmetics, batteries, etc. contributed to the decline. Production goods fell 5.6% year-on-year to 93.9. Moss-type semiconductor integrated circuits (memory), connectors, thermistors, etc. contributed to the rise, and fixed capacitors, cemented carbide chips, engine parts, etc. contributed to the decline.

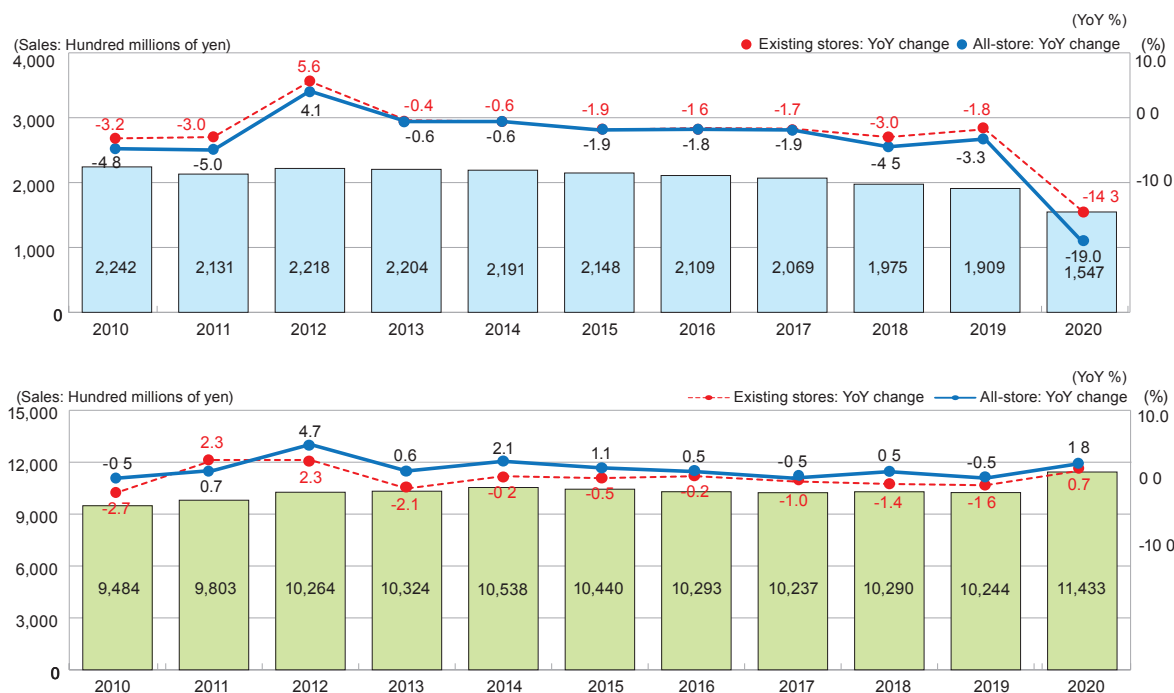


Source: Tohoku Bureau of Economy, Trade and Industry, Indices of Industrial Production

(7) Retail

Retail trade is at a standstill.

- In 2020, department stores and supermarkets in the Tohoku region recorded 1,298.1 billion yen of sales on an all-store basis, down 1.2% year-on-year, marking four consecutive years of sales decline. Meanwhile, sales at existing stores shrank 1.5% year-on-year, declining for eight consecutive years.
- In terms of year-on-year comparison of sales by store type (on an all-store basis) in 2020, department store sales decreased by 19.0% to 154.7 billion, the eighth consecutive year of decrease. Meanwhile, supermarket sales increased to 1,143.3 billion yen, up 1.8% year-on-year for the first time in two years. The rate of decline in department stores was the largest and record-breaking since 1988.



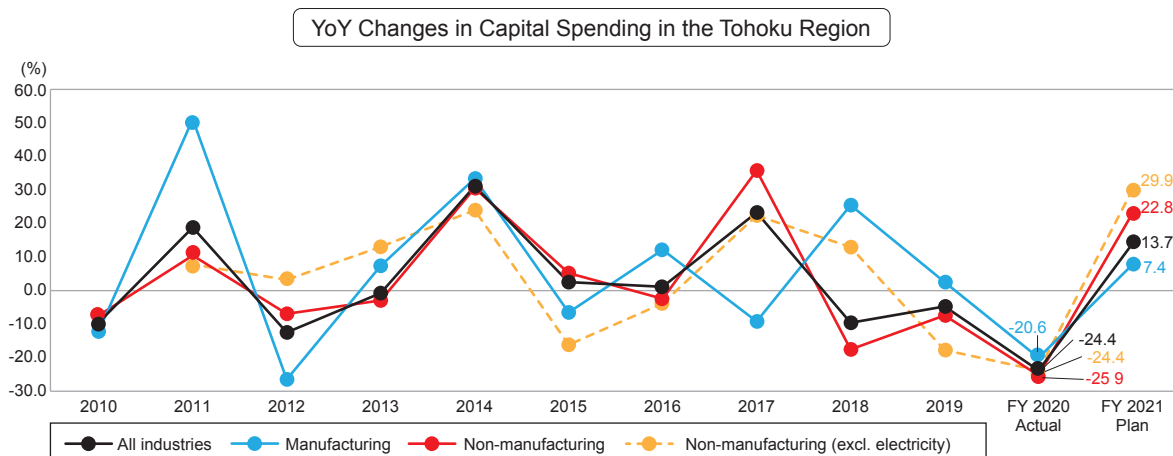
(Note) The year-on-year rate of increase and/or decrease in supermarkets is calculated using the numerical value processed by the link coefficient.

Source: Ministry of Economy, Trade and Industry Commercial Dynamics Statistics Survey

(8) Private Sector Capital Spending

Capital spending plans see an increase in both manufacturing and non-manufacturing industries.

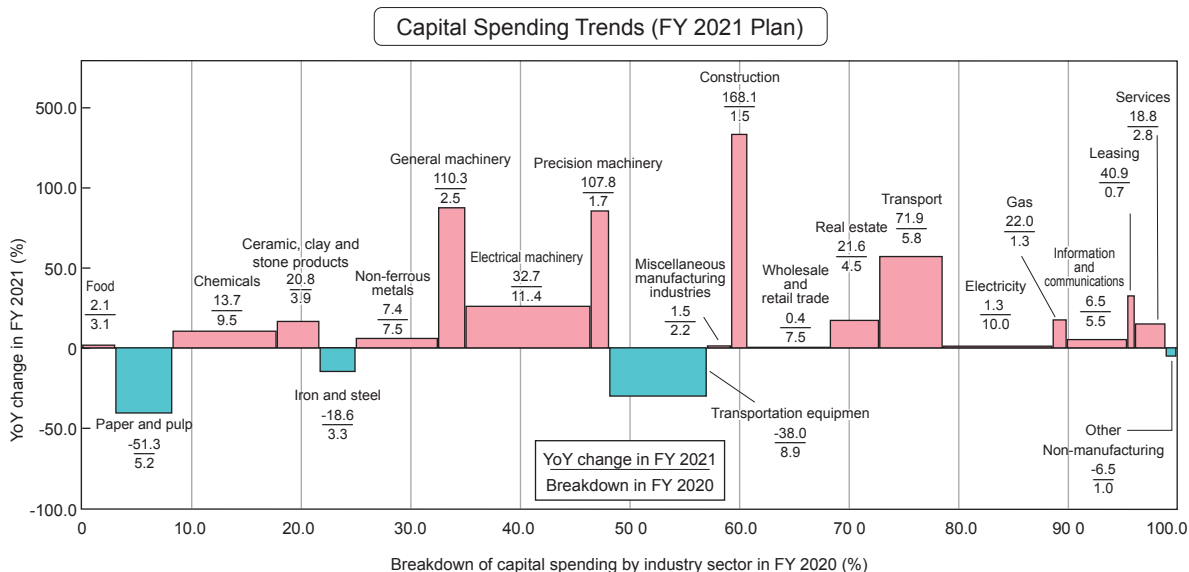
- The capital investment plan for the Tohoku region in FY2021 (survey in June 2021) is 348.5 billion yen, an increase of 13.7% year-on-year. The manufacturing industry plans to increase by 7.4%, and the non-manufacturing industry plans to increase by 22.8% (non-manufacturing industry excluding electric power is plans to increase by 29.9%).
- Capital investment in FY2020 decreased by 24.4% in all industries. The manufacturing industry decreased by 20.6% year-on-year due to the end of large-scale investment in transportation machinery. The non-manufacturing industry decreased by 25.9% year-on-year (excluding electric power, the non-manufacturing industry decreased by 24.4% year-on-year) due to the termination of investment in the electric power supply. Due to the impact of the COVID-19 the investment may be postponed.



Note 1: The publicly released data (for the seven Tohoku prefectures including Niigata Prefecture) were recalculated for the six Tohoku prefectures. The same shall apply hereinafter.

Source: *Regional Capital Investment Plan Survey*, Development Bank of Japan

- Looking at the year-on-year comparison of the capital investment plan for FY2021, in the manufacturing industry, while electrical machinery such as 5G-related investment and general machinery such as aircraft engine parts and EV-related investments are increasing, there are plans to reduce it in the transportation machinery, paper, pulp, etc. where capital investment has settled down. In the non-manufacturing industry, it is planned to increase in a wide range of industries such as transportation and construction.



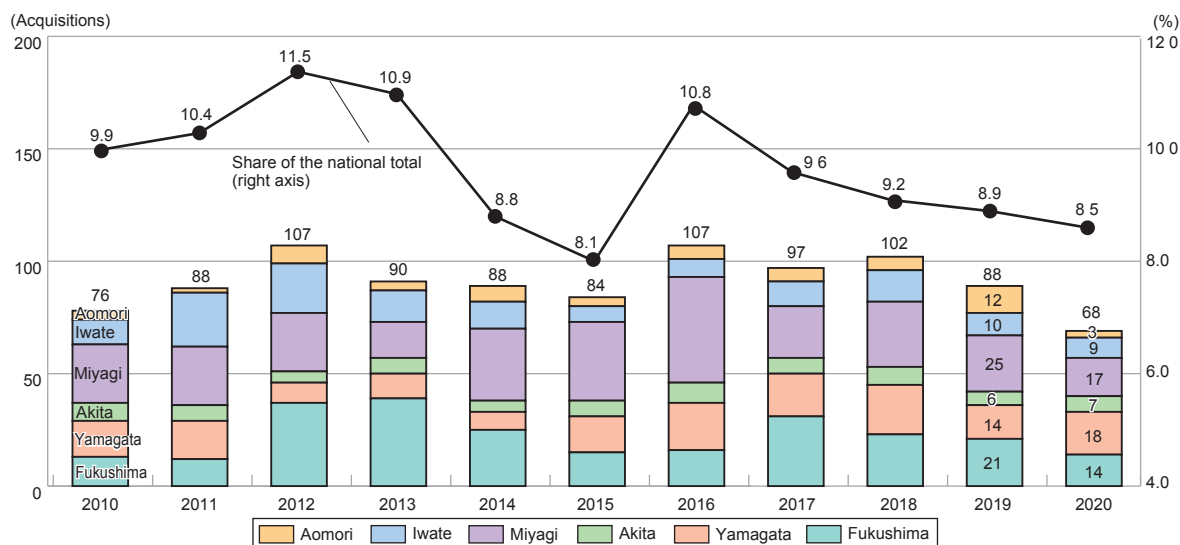
Source: Development Bank of Japan 2021 Tohoku Regional Capital Investment Plan Survey

(9) Acquisition of Plant Locations

Acquisition of plant locations has decreased for the second consecutive year.

- In 2020, the number of acquisitions for plant locations (manufacturing industry) in the Tohoku decreased by 20 (down 22.7%) from the previous year to 68, and the second consecutive year of decline. The region's share of the national total went down by 0.4 percentage points to 8.5%.
- By prefecture, in descending order of acquisitions, Yamagata 18 (14 in 2019), Miyagi 17 (25 in 2019), Fukushima 14 (21 in 2019), Iwate 9 (10 in 2019), Akita prefecture 7 (6 in 2019) and 3 in Aomori (12 in 2019).

Changes in Number of Acquisitions for Plant Locations

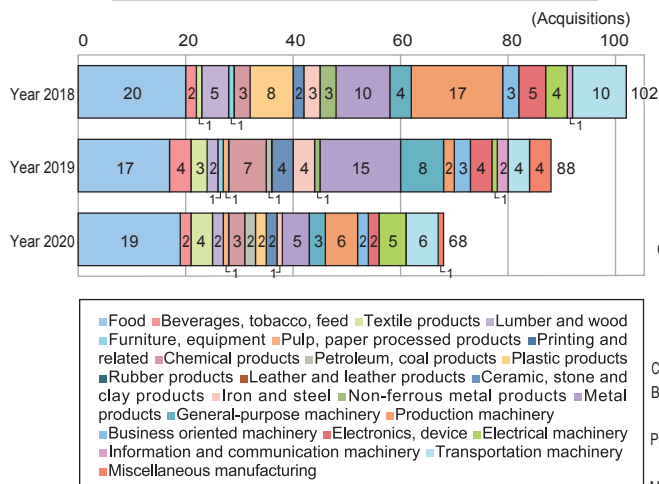


Note 1: The Survey of Factory Location Trends targets the acquisition (including leasing) of land with a size of 1,000 square meters or larger for use to build a factory, business office or research center for manufacturing, electricity (excluding hydraulic power plants, geothermal power plants and solar power plants,) gas and heat supply. : Solar power plants were excluded from the 2015 survey for the electricity sector.

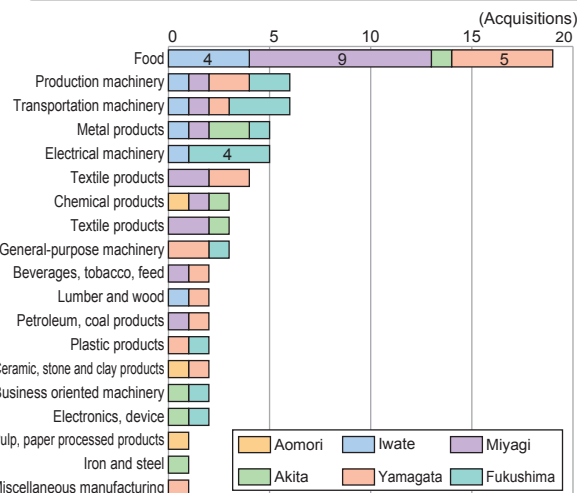
Source: Survey of Factory Location Trends (Preliminary Report) January - December 2020: Tohoku Version, the Tohoku Bureau of Economy, Trade and Industry

- By industry, in descending order of the number of acquisitions, food (19), production machinery (6), transportation machinery (6), etc., and the top rank of food continues. Looking at this by prefecture, in descending order of the number of acquisitions, Miyagi prefecture has 9 acquisitions, Yamagata prefecture has 5, Iwate prefecture has 4, and Fukushima prefecture 4 acquisitions in electrical machinery.

Changes in the Number of Acquisitions by Industry



Distribution of Plant Location Acquisitions by Industry Sector and Prefecture (2020)



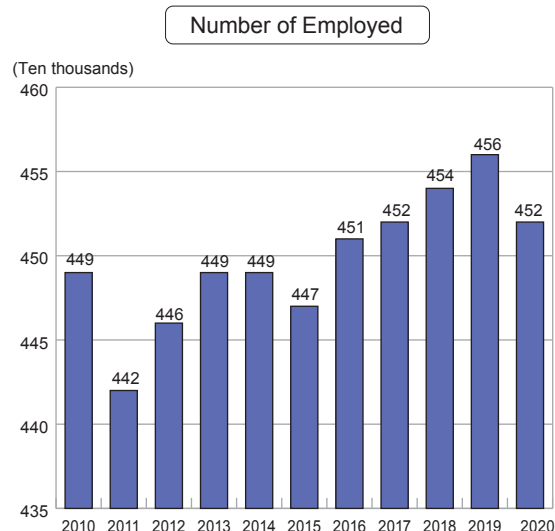
(Note) Excludes the electricity industry, gas industry, heat supply industry, and research institutes.

Source: Survey of Factory Location Trends (Preliminary Report) January - December 2020: Tohoku Version, the Tohoku Bureau of Economy, Trade and Industry

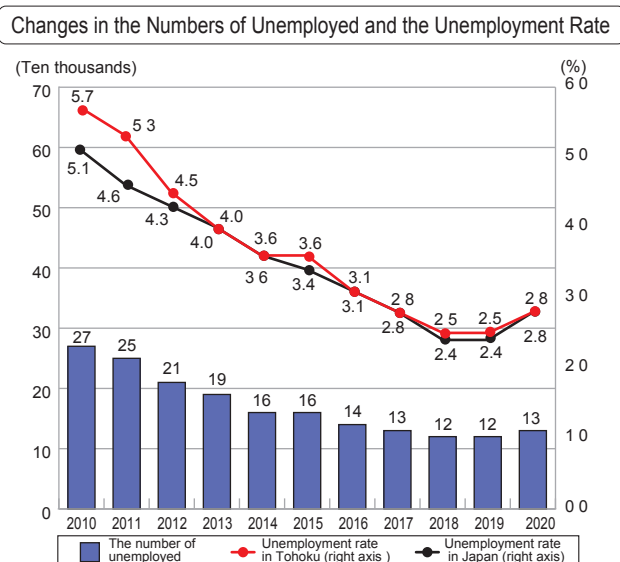
(10) Labor Force Population

The number of people employed is 4.52 million, and the number of unemployed is 130,000.

- In 2020, the number of people employed in the Tohoku region was 4.52 million, which exceeds that for 2010, a year before the Great East Japan Earthquake, but it decreased by 40,000 due to the affect of the COVID-19. The number of unemployed was 130,000. Although it is a low level, the number has increased by 10,000. This percentage of unemployed at 2.8% was an increase of 0.3 points from the previous year.

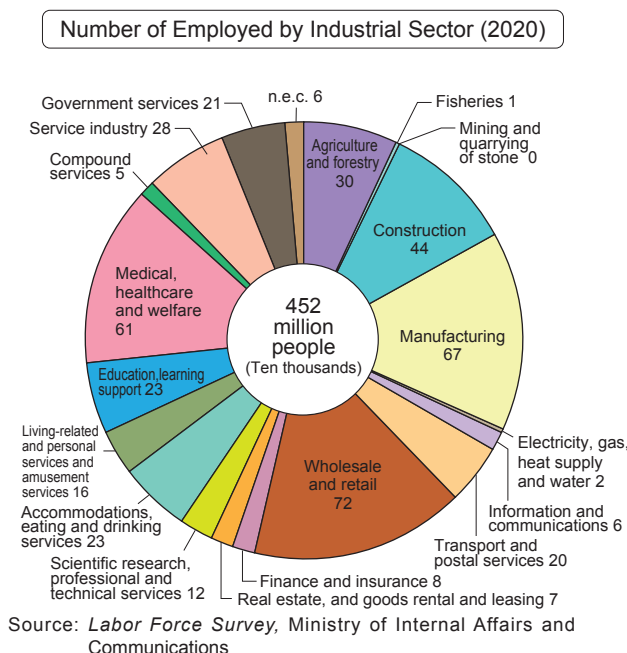


Note: The figure for 2011 is a supplementary estimate made because of the impact of the Great East Japan Earthquake.
Source: *Labor Force Survey*, Ministry of Internal Affairs and Communications

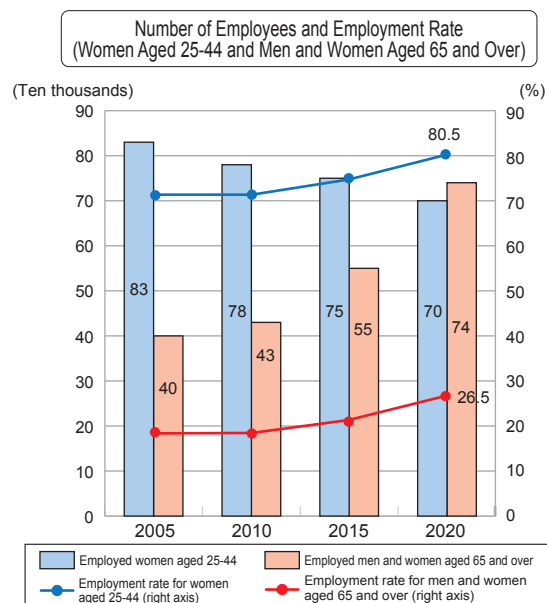


Source: *Labor Force Survey*, Ministry of Internal Affairs and Communications

- By industrial sector, the largest number of people employed was seen in wholesale and retail trade at 720,000 (15.9%), followed by manufacturing with 670,000 (14.8%), medical, healthcare and welfare with 610,000 (13.5%), construction with 440,000 (9.7%), and agriculture and forestry with 300,000 (6.6%). The number for real estate, and goods rental and leasing increased by 10,000 people, and accommodations, eating and drinking services decreased by 10,000 with a change in the ranking from the previous year.
- The number of employed women aged 25-44 years (child-caring age) was decreasing, while the number of people employed (men and women) aged 65 and over was increasing. The employment rate for women aged 25-44 years and that for men and women aged 65 and over showed an upward tendency.



Source: *Labor Force Survey*, Ministry of Internal Affairs and Communications

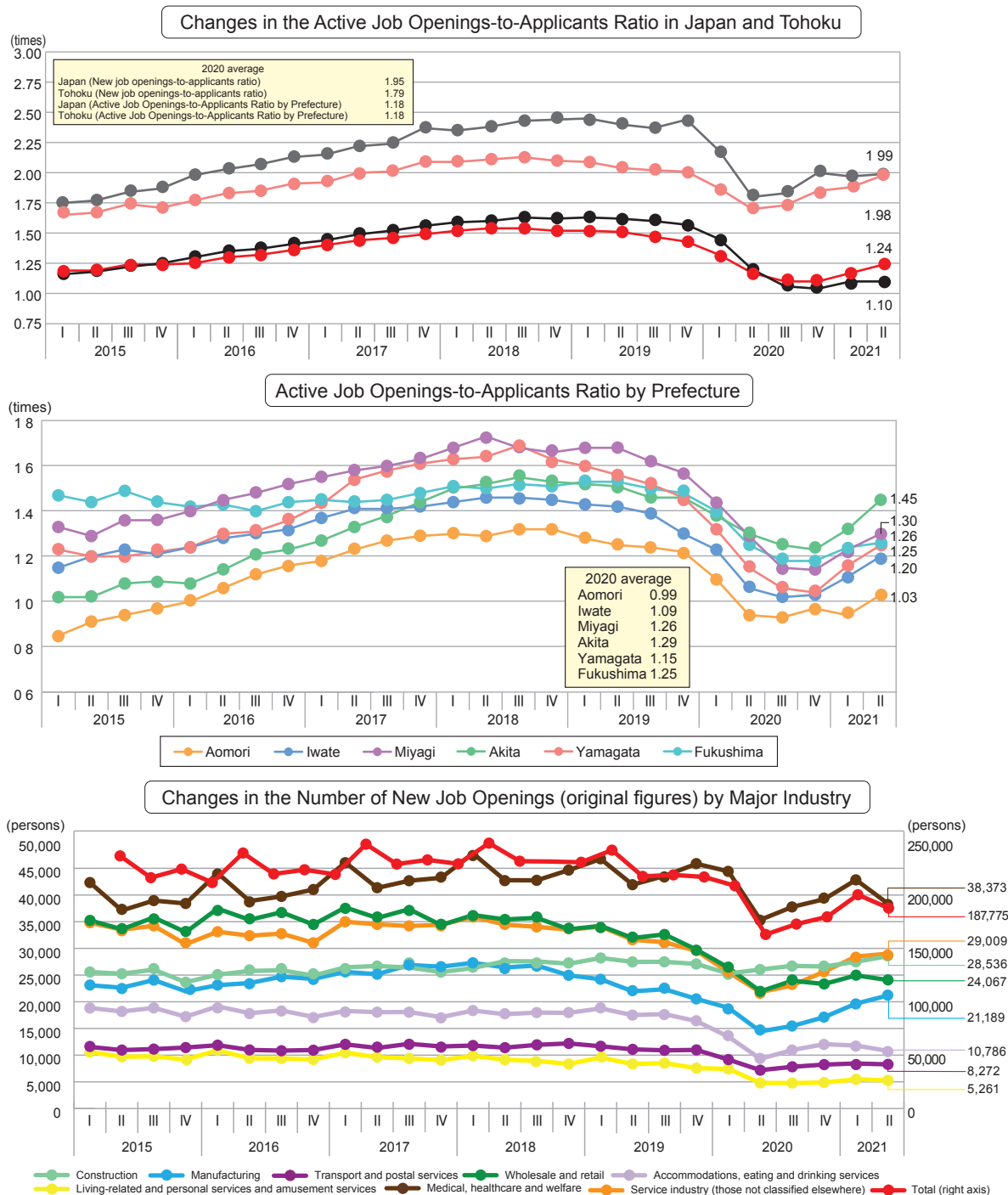


Source: *Labor Force Survey*, Ministry of Internal Affairs and Communications

(11) Employment

Both the new job openings-to-applicants ratio and the active job openings-to-applicants ratio are recovering from the impact of the new corona virus infections.

- In 2020, the annual average for active job opening-to-applicants ratio in the Tohoku region in 2020 was 1.18, the same as national average. The ratio of new job openings to applicants was 1.79 times, which is similar to the national average of 1.95. Both were affected by the COVID-19 and lower than the previous year.
- The active job openings-to-applicants ratio in Tohoku in the second quarter of 2021 was 1.24, and Akita Prefecture was 1.45, ranking third in the country. The ratio of new job openings to applicants has also increased to 1.98, and it is showing recovery from the impact of the COVID-19
- Looking at the changes in the number of new job openings (original figures) by major industry, manufacturing and service industry (those not classified elsewhere) are recovering, while the recoveries of transportation and postal services, wholesale and retail trade, and accommodation, eating and drinking services and living-related and personal services and amusement services have delayed.

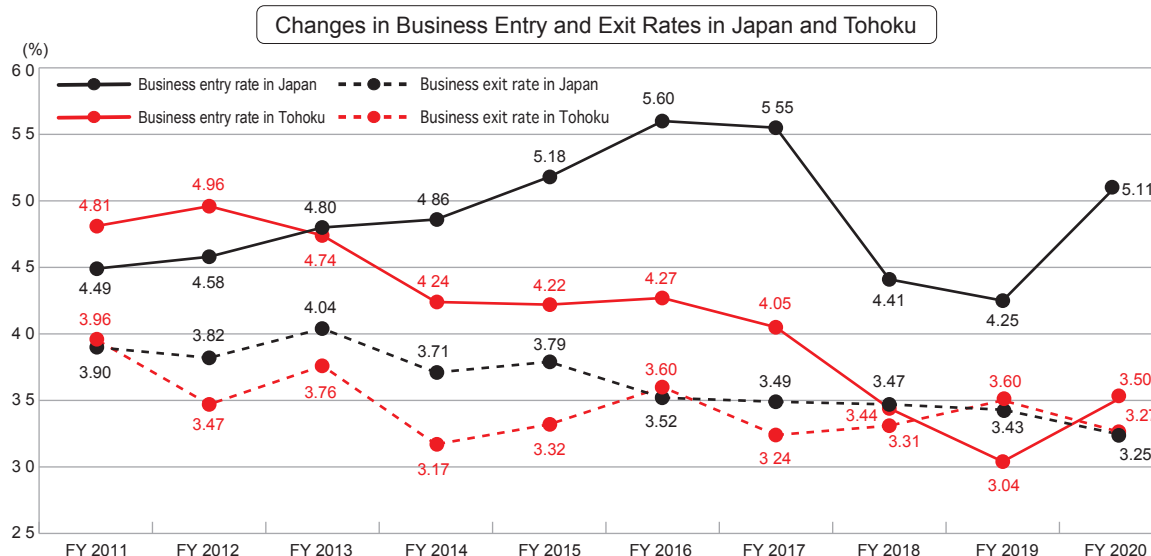


Source: Labor and Welfare General Employment Agency Status, Ministry of Health

(12) Business Entry and Exit Rates

The business entry rate rose for the first time in 4 years, the exit rate fell for the first time in 3 years, and the entry rate exceeded the exit rate.

- Looking at the employment insurance statistics for the business entry rate of the Tohoku region in 2020, it was 3.50%, rose for the first time in four years. The business entry rate, which increased after the Great East Japan Earthquake, peaked in FY2012 and has followed a downward trend, but has turned to an increase in 2020. For all Japan, the business entry rate was 5.11. It also started to rise for the first time in four years.
- The exit rate fell to 3.27% for the first time in 3 years. Nationwide, the exit rate fell slightly to 3.25 and is following a downward trend.



Note: The business entry and exit rates were calculated using the following formulas based on the data from the *Annual Reports on Employment Insurance Services*.

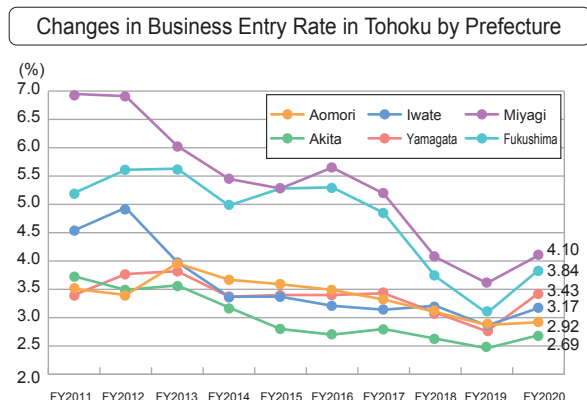
Entry rate = Number of newly applied establishments in the relevant year of employment insurance / Number of applicable establishments at the end of the previous fiscal year x 100 (%)

Exit rate = Number of closed establishments in the relevant fiscal year of employment insurance / Number of applicable establishments at the end of the previous fiscal year x 100 (%)

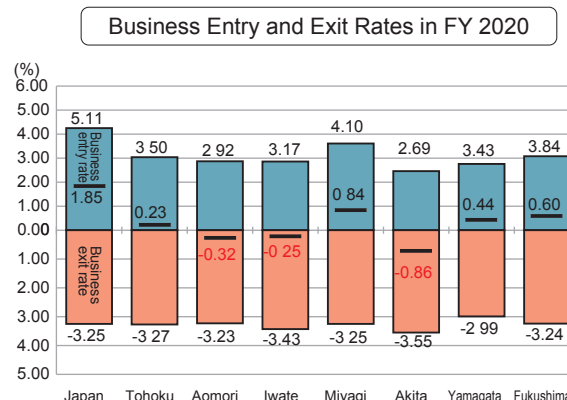
* Applicable establishments are business establishments that have an insurance relationship with labor insurance related to employment insurance pursuant to the provisions of the Act on Collection of Labor Insurance Premiums. An existing business establishment does not become a business establishment covered by employment insurance until it hires an employee.

Source: *Monthly and Annual Reports on Employment Insurance Services*, Ministry of Health, Labor and Welfare

- Looking at the business entry rate in FY2020 by prefecture, it started to rise in all six prefectures in Tohoku. Looking at the difference between the business entry rate and the exit rate, the entry rate is 1.85 points higher than the exit rate in the whole country, but it is only 0.23 points higher in Tohoku. By prefecture, the business entry rate exceeds the exit rate in Miyagi, Yamagata, and Fukushima prefectures, with Miyagi prefecture having the highest rate of 0.84 points.



Source: *Monthly and Annual Reports on Employment Insurance Services*, Ministry of Health, Labor and Welfare



Note: Plotting (-) on each bar indicates the difference in rate between business entry and exit.

Source: *Monthly and Annual Reports on Employment Insurance Services*, Ministry of Health, Labor and Welfare

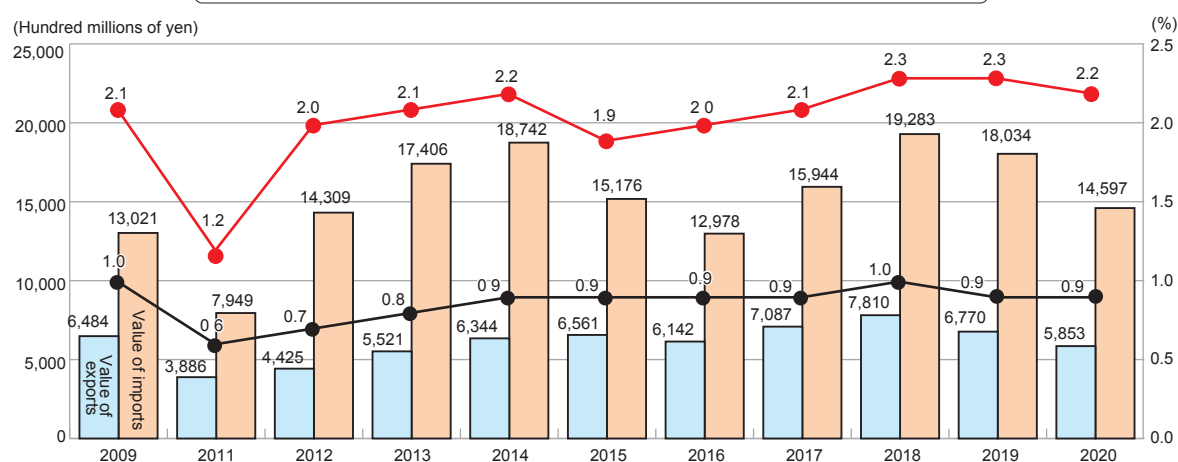
(13) Internationalization

(i) Trade

Exports and imports decrease for two consecutive years.

- The export value of the Tohoku region in 2020 was 585.3 billion yen, a decrease of 13.5% year-on-year due to a decrease in motor, iron and steel, etc., for the second consecutive year. Imports amounted to 1,459.7 billion yen, down 19.1% year-on-year due to a decrease in crude oil, raw oil, coal, etc., the second consecutive year of decline. Exports account for 0.9% (0.9% in 2019) and imports account for 2.2% (2.3% in 2019).

Changes in the Value of Exports and Imports Handled in the Tohoku Region

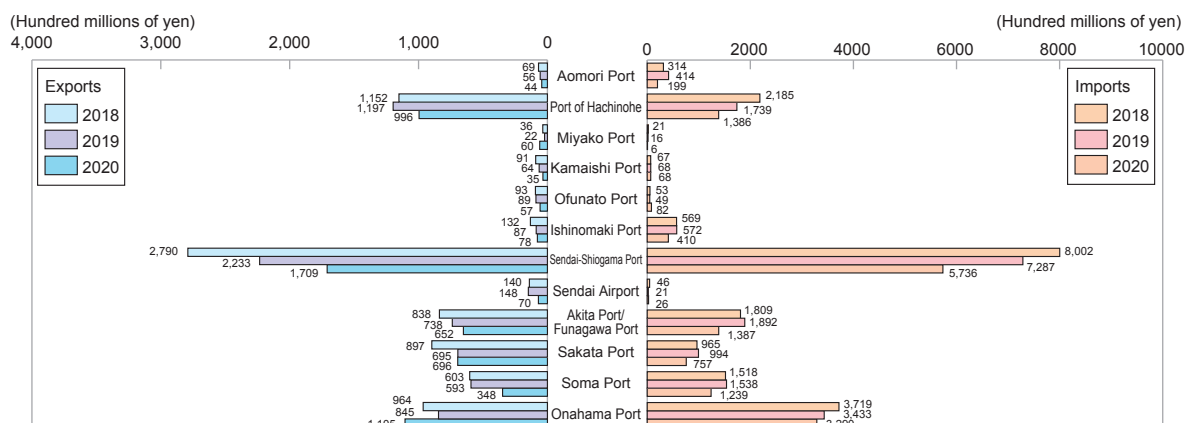


Note: The value of cargo that passed through export and import custom clearances at the custom offices in the six Tohoku prefectures.

Source: Overview of Trade in the Tohoku Region, Yokohama Customs, Ministry of Finance

- Looking at the transaction volume by port in the Tohoku region, the export value is in the order of Sendai Shiogama Port, Onahama Port, and Hachinohe Port, and the import value is in the order of Sendai Shiogama Port, Onahama Port, and Akita Funagawa Port. Compared to the previous year, exports increased at Onahama Port, etc., but decreased at Sendai Shiogama Port, Soma Port, Hachinohe Port, etc., and imports increased at Ofunato Port, etc., but at Sendai Shiogama Port, Akita Funagawa Port, Hachinohe Port, etc. diminished.

2008/2020 Trade Value by Port in the Tohoku Region

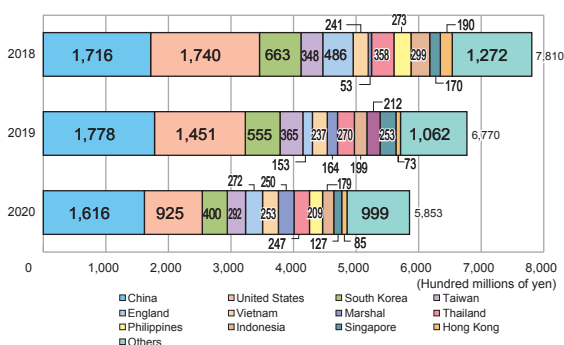


(Note) Ports in the Tohoku region are posted on 4. Industrial infrastructure, etc. (2) Transportation infrastructure map.

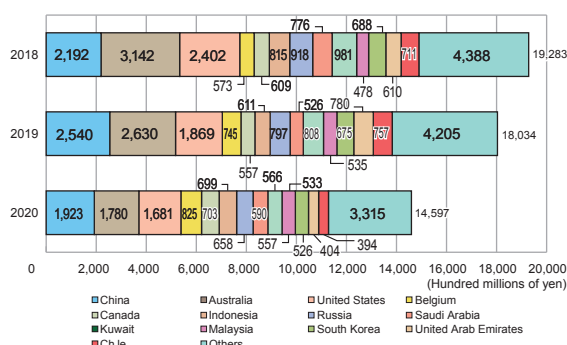
Source: List of the Value of Trade by Port in Japan, Kobe Customs, Ministry of Finance

- By trading partner country, exports are mainly to China, the United States, and South Korea, and imports are mainly from the China, Australia, and the United States. Compared to the previous year, exports increased to the United Kingdom, etc., but decreased from the United States and China, etc., and imports increased to Canada, etc., but decreased from Australia and China, etc.
- Looking at the value of exports and imports by item, pharmaceuticals, rubber products, motors, etc. occupy the top positions in exports, and metal ore and scraps, coal, crude oil, raw oil, etc. occupy the top positions in imports. Compared to the previous year, exports increased in pharmaceuticals, recording media (including recorded), but motors, iron/steel, etc. decreased, and imports increased in organic compounds, but crude oil, raw oil, coal, etc. decreased.

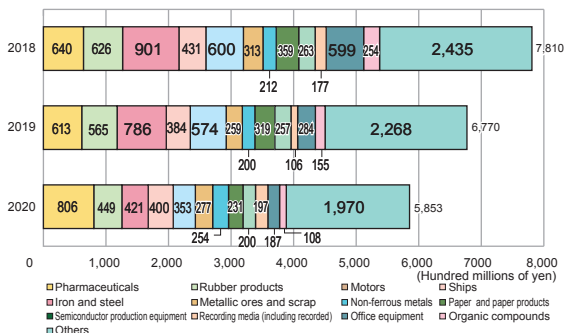
Changes in Major Destinations of Exports (Countries/Regions)



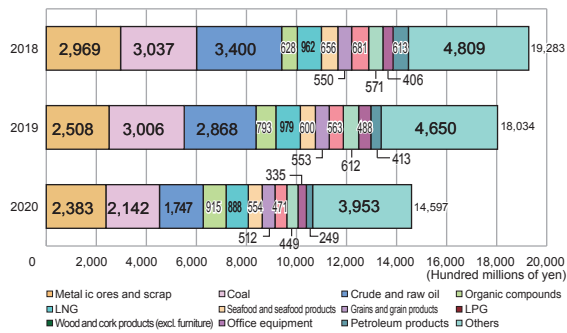
Changes in Major Sources of Imports (Countries/Regions)



Changes in Breakdown of Export Values by Item



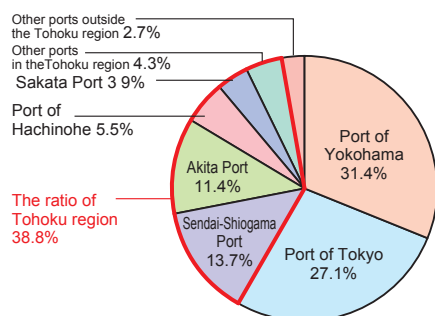
Changes in Breakdown of Import Values by Item



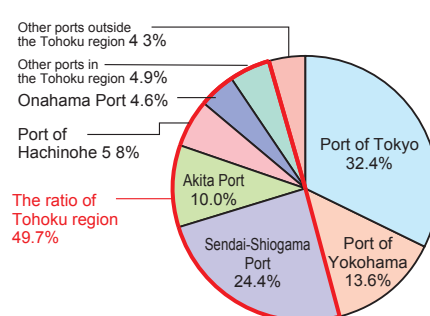
Source: Overview of Trade in the Tohoku Region, Yokohama Customs, Ministry of Finance

- Approximately 31.4% of marine export cargoes, comprised of products produced in the Tohoku region, were transported in international containers and loaded at the port of Yokohama, while 27.1% were loaded at the Port of Tokyo and 13.7% at Sendai-Shiogama Port. This implies that a large proportion of cargoes were loaded at ports located outside the Tohoku region. Meanwhile, 32.4% of marine import cargoes, comprised of goods to be consumed in the Tohoku region, were unloaded at the Port of Tokyo, 24.4% at Sendai-Shiogama Port and 13.6% at the Port of Yokohama, meaning about half were unloaded at ports in the Tohoku region.

Component Ratio of Export Cargo Volume (tons) by Shipping Port (November 2018) (Production area: Tohoku)



Component Ratio of Import Cargo Volume (tons) by Shipping Port (November 2018) (Consumption area: Tohoku)



Note: The survey is conducted once every five years for clarifying the contemporary status of the international maritime container cargo flow and policy making, etc.

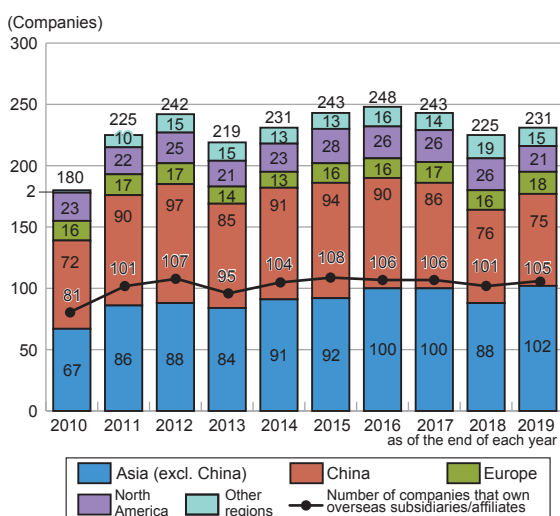
Source: FY 2018 Survey Results of Japan's Export and Import Container Cargo Movements, Ports and Harbors Bureau, Ministry of Land, Infrastructure, Transport and Tourism

(ii) Internationalization of Corporate Activities

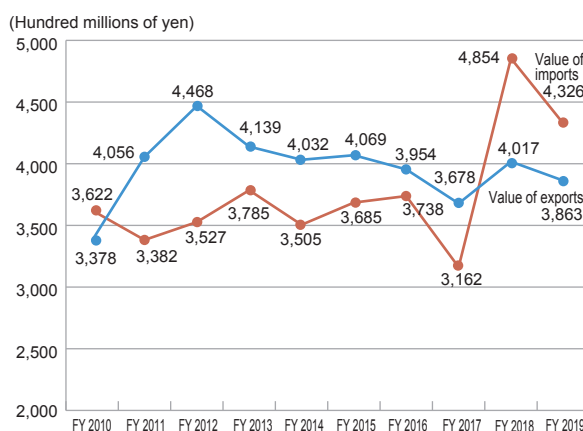
The number of overseas subsidiaries of companies headquartered in the Tohoku region increases, and the value of exports and imports decreases.

- According to the results of the survey for companies headquartered in the Tohoku region in FY 2019 (1,621 responding companies), 105 companies owned overseas subsidiaries and/or affiliates, amounting to 231. Looking at the breakdown of the countries where they are located, Asia (excluding China) has the largest number with 102 companies (composition ratio 44.2%), followed by China with 75 companies (32.5%) and North America with 21 companies (9.1%).
- With respect to overseas transactions by companies headquartered in the Tohoku region (FY 2019), the value of export goods was 386.3 billion yen (167 responding companies). Meanwhile, the value of import goods was 432.6 billion yen (172 responding companies).

Changes in the Number of Overseas Subsidiaries/Affiliates Owned by Companies Headquartered in the Tohoku Region



Changes in Values of Export and Import Goods by Companies Headquartered in the Tohoku Region



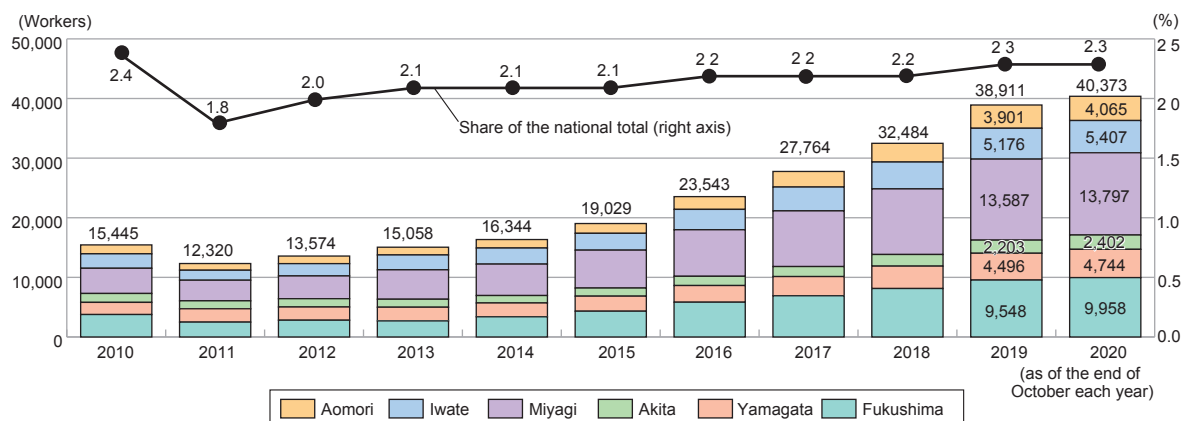
Note 1: The Basic Survey of Japanese Business Structure and Activities targets companies that own a business establishment engaging in mining, manufacturing, electricity and gas, wholesale, retail, and services with 50 or more employees and a capital or equity investment, amounting to 30 million yen or more.

Note 2: In principle, overseas subsidiaries shall hold more than 50% of voting rights, and overseas affiliates between 20-50%

Source: Basic Survey of Japanese Business Structure and Activities, Ministry of Economy, Trade and Industry

- The number of foreign workers in the Tohoku region at the end of October 2020 was 40,373, an increase of 3.8% year-on-year. By prefecture, Miyagi had the largest number of foreign residents with 13,797, followed by Fukushima with 9,958.

Changes in the Number of Foreign Workers



Note: The above figures are obtained by totaling the numbers reported in the notifications submitted by employers who are required to notify the status of their employed foreign workers (excluding those who are special permanent residents, and those who hold diplomatic/official status) as of the end of October every year.

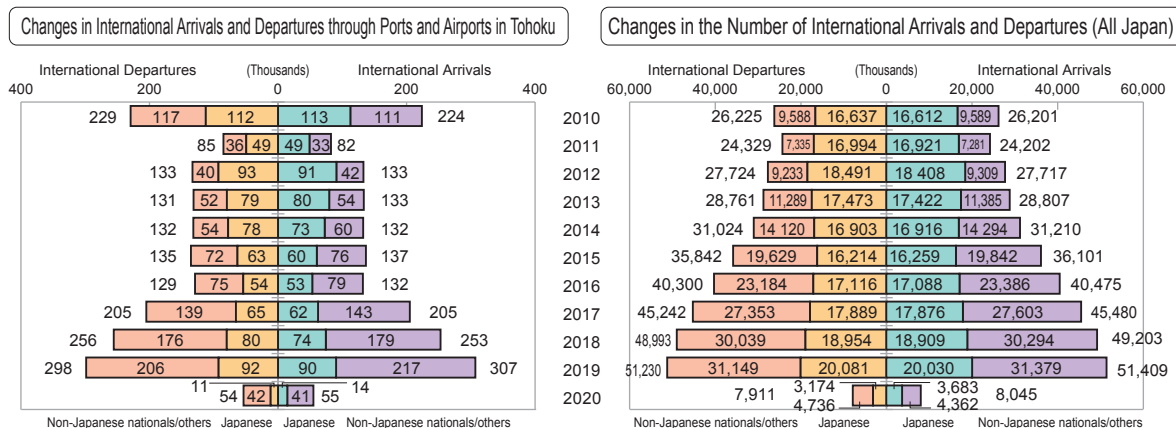
Source: Table of Notification Status of Foreign Workers' Employment Status, Ministry of Health, Labor and Health

(iii) International Arrivals/Departures and Foreign Residents

Among the international arrivals and departures via ports and airports in the Tohoku region, the number of non-Japanese nationals is decreasing considerably.

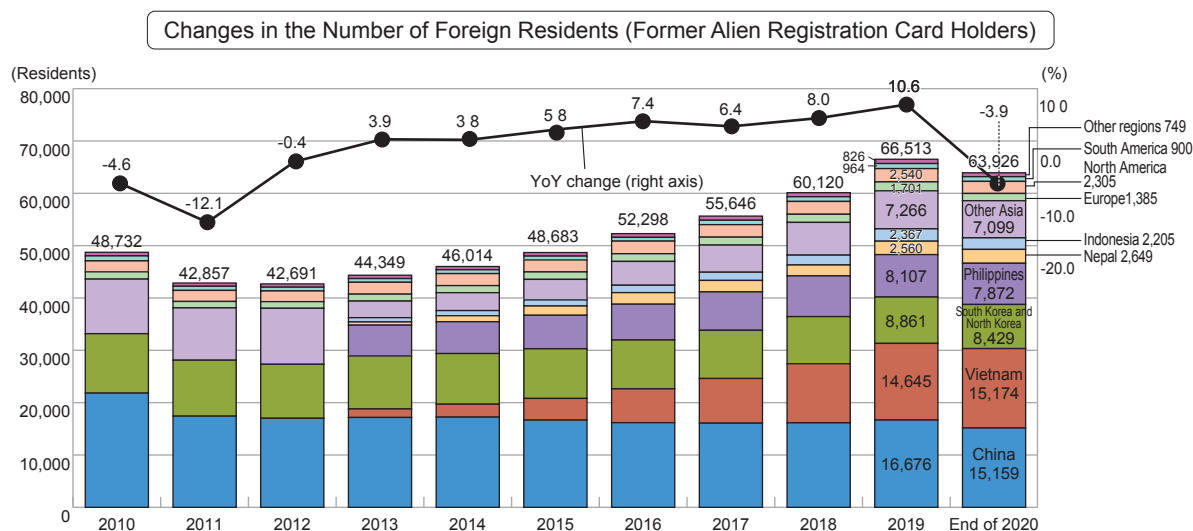
- In 2020, the total number of international arrivals and departures using ports and airports in the Tohoku was 108,655, a decrease of 82.1% from 605,553 in 2019, and the number of immigrants in terms of both Japanese and foreigners decreased significantly. By port or airport, the number of immigrants entering and leaving the country decreased significantly at both ports and airports.

The number of international arrivals and departures via ports and airports in the Tohoku region increased slightly from the previous year to 0.7%.



Source: Annual Report on Overseas Arrivals and Departures Statistics, Ministry of Justice

- The number of foreigners residing in the Tohoku region at the end of 2020 was 63,926, a decrease of 3.9% year-on-year. By nationality, Vietnam accounted for 15,174 people, accounting for 23.74% of the total, the highest number for the first time. This was followed by China with 15,159 (23.71%), South Korea and North Korea with 8,429 (13.2%), and the Philippines with 7,872 (12.3%).



Note 1: "Other Asian countries" for 2010, 2011 and 2012 represent Asia countries excluding China, South Korea and North Korea.

Note 2: With the revision of the Immigration Control and Refugee Recognition Act in July 2012 and the introduction of a new residence management system, the Foreign Resident Registration Act was abolished. Thus, statistics have been created for "medium- to long-term residents" and "special permanent residents" (hereinafter collectively referred to as "foreign residents"). As a result of these changes to the system, the figures for foreign residents under the new system and registered aliens under the old system do not match.

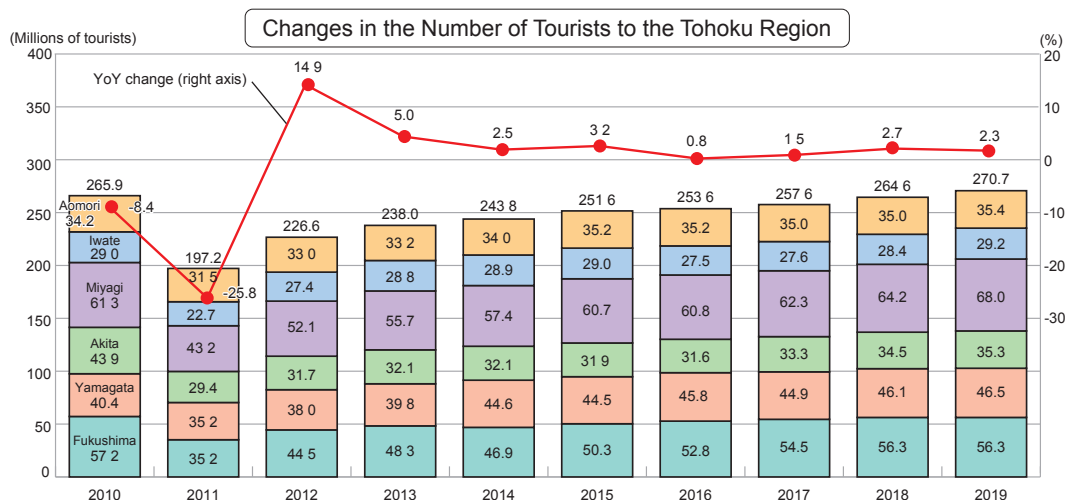
Source: Statistics on Foreign Resident in Japan (formerly Statistics on Registered Aliens), Ministry of Justice

(14) Tourism

(i) Domestic Tourism

The number of tourists in the Tohoku region has increased for eight consecutive years, exceeding the pre-Great East Japan Earthquake level.

- The number of tourists in the Tohoku region decreased significantly in 2011 after the Great East Japan Earthquake, but has increased for eight consecutive years since then, reaching 270.74 million in 2019, exceeding the pre-earthquake level.

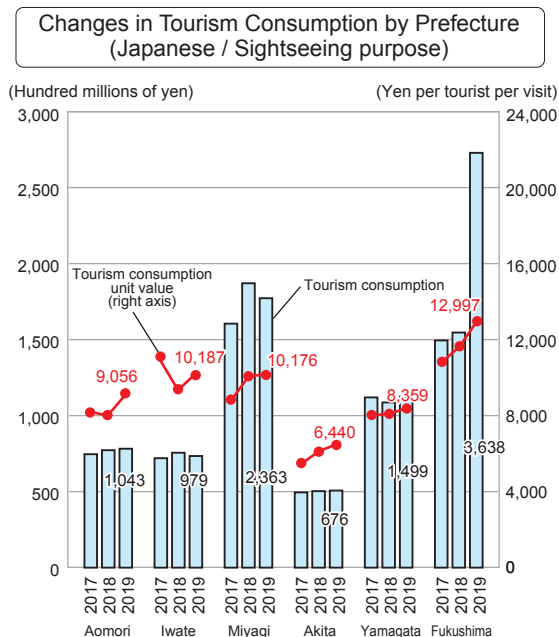


Note : Note that 2019 is the level before the impact of the spread of the COVID-19 infection is seen.

Note : The figures for 2010 are shown for reference purpose only because the survey criteria prior to 2010 differed among prefectures.

Source: Tourism statistics for each prefecture

- Comparing the tourism consumption amount and tourism consumption unit price in 2019 with the previous year, both the tourism consumption amount and tourism consumption unit price increased in Aomori, Akita, Yamagata and Fukushima. The tourism consumption unit price increased in Iwate and Miyagi
- In 2019, the total number of overnight guests in each prefecture increased in 5 prefectures except Aomori prefecture, but in 2020, it decreased in all 6 prefectures due to the spread of the COVID-19 infection.

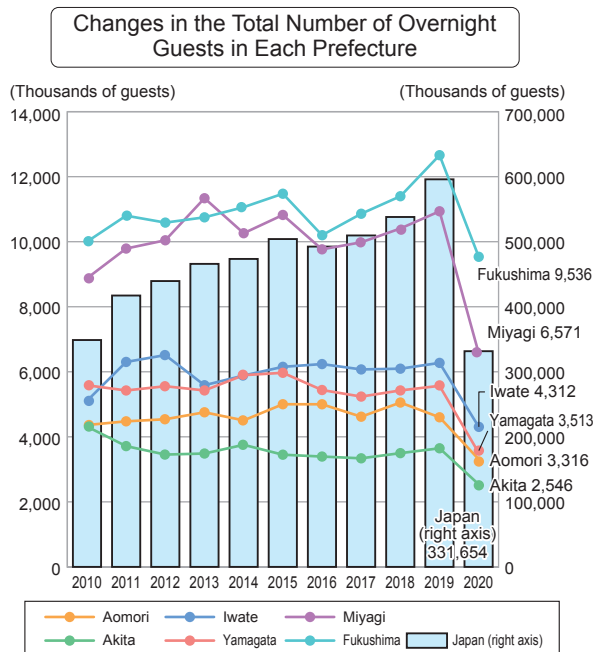


Note 1: Tourism consumption refers to the total spent by inbound visitors to the relevant prefecture(s).

Note 2: The tourism consumption unit value refers to tourism consumption per tourist visiting the relevant prefecture(s) during one visit.

Note 3: 2018 data for Iwate Prefecture is based on the "2018 Iwate Prefecture Tourism Statistics Overview"

Note 4: Note that 2019 is the level before the impact of the spread of the COVID-19 infection is seen.



Note 1: Estimated values such as the total number of guests at all accommodation facilities.

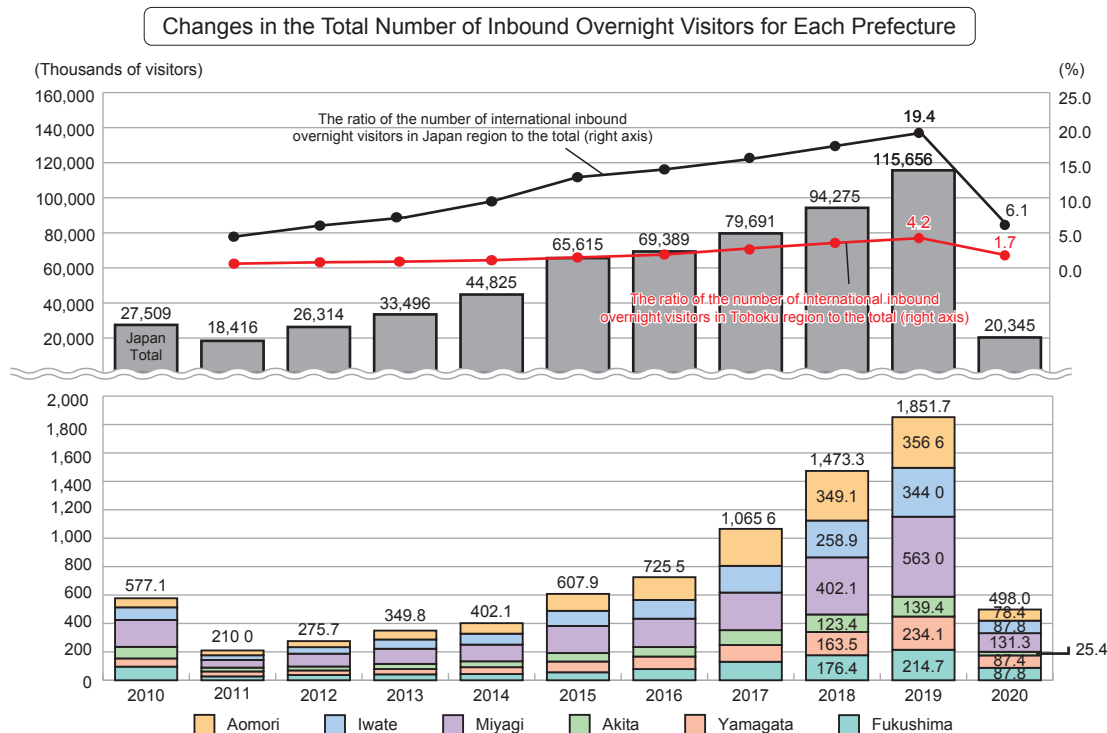
Note 2: For the period from January to March 2010, the number of visitors represents those of staying overnight at accommodations with 10 or more employees.

Source: Statistics on Inbound Tourists, Japan Tourism Agency

(ii) International Inbound Tourism

The total number of international inbound overnight visitors decreased significantly due to the spread of the COVID-19 infection.

- The total number of foreign guests staying in the Tohoku region in 2020 was 498,000, a decrease of 73.1% from the previous year. The whole country also decreased by 82.4% from the previous year.

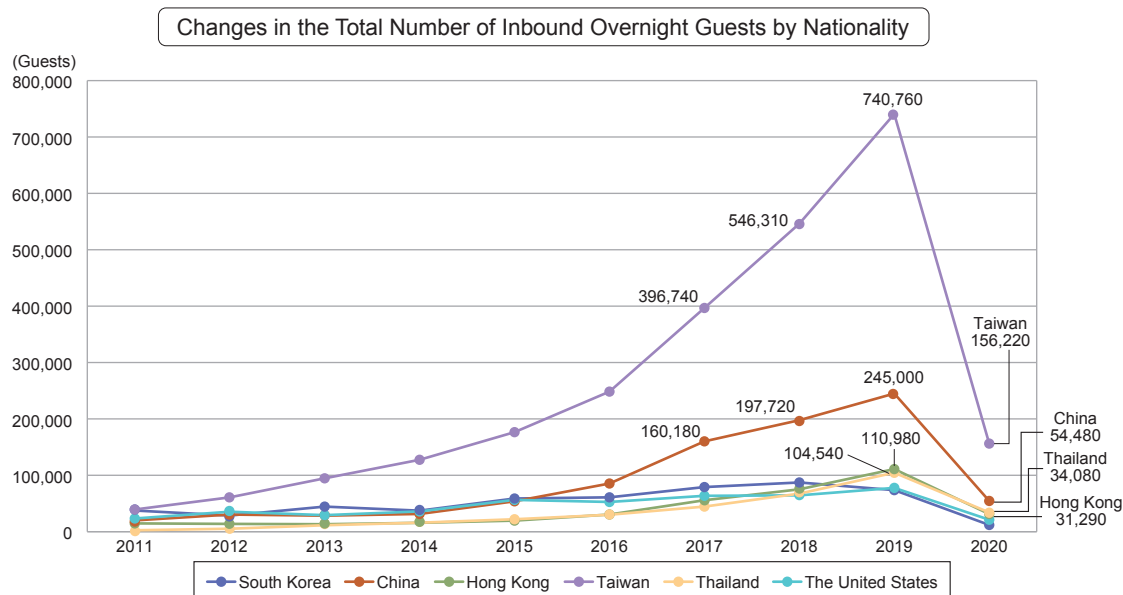


Note 1: Estimated values such as the total number of guests at all accommodation facilities.

Note 2: For the period from January to March 2010, the number of visitors represents those staying overnight at accommodations with 10 or more employees.

Source: Statistics on Inbound Tourists, Japan Tourism Agency

- By nationality, the number of overnight guests from Taiwan increased rapidly in recent years, but due to the effects of the COVID-19 etc., the number of guests in 2020 decreased by 78.9% from the previous year to about 156,000. This was followed by China, down 77.8% to about 54,000, Thailand down 67.4% to about 34,000, and Hong Kong down 71.8% to about 31,000.



Note: The number of visitors represents those staying overnight at accommodation facilities with 10 or more employees.

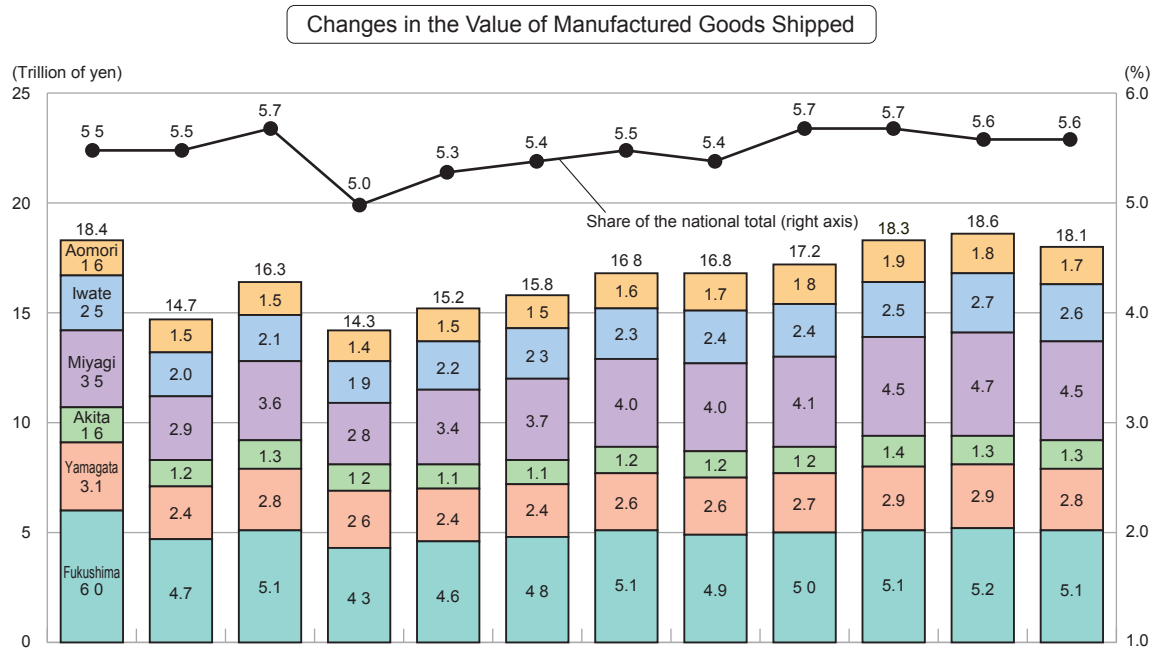
Source: Statistics on Inbound Tourists, Japan Tourism Agency

(1) Manufacturing

(i) Overview

The shipment value of manufactured goods shipped was 18,107.6 billion yen, down from the previous year for the first time in eight years.

- The shipment value of manufactured goods in the Tohoku region in 2019 was 18,107.6 billion yen, down 2.7% from the previous year, falling below the previous year for the first time in 8 years. The ratio to the whole country was 5.6%, which was the same as the previous year.



Source: Economic Census for Business Activity (business establishments with 4 or more employees) and Census of Manufacture (business establishments with 4 or more employees)

- By prefecture, the number of business establishments, the number of employees, the value of manufactured goods shipped, etc. decreased in all prefectures, and the value added increased in Aomori and Yamagata prefectures, but decreased in other prefectures.

Manufacturing Industry Data by Prefecture

	No. of business establishments			No. of employees (persons)			Value of manufactured goods shipped (Millions of yen)			Value added (Gross value added for business establishments with 29 or fewer employees) (Millions of yen)		
	2019	2020	YoY change	2019	2020	YoY change	2018	2019	YoY change	2018	2019	YoY change
Aomori	1,377	1,342	- 2.5	57,586	56,877	- 1.2	1,779,322	1,727,106	- 2.9	552,138	563,173	2.0
Iwate	2,087	2,055	- 1.5	87,940	87,639	- 0.3	2,727,177	2,626,206	- 3.7	801,382	773,489	- 3.5
Miyagi	2,579	2,528	- 2.0	118,720	116,847	- 1.6	4,665,553	4,533,565	- 2.8	1,448,220	1,357,816	- 6.2
Akita	1,711	1,648	- 3.7	62,539	61,753	- 1.3	1,335,769	1,286,172	- 3.7	502,839	494,187	- 1.7
Yamagata	2,436	2,339	- 4.0	101,048	98,407	- 2.6	2,865,359	2,845,633	- 0.7	1,061,358	1,078,539	1.6
Fukushima	3,518	3,485	- 0.9	160,549	158,688	- 1.2	5,246,465	5,088,966	- 3.0	1,753,608	1,714,968	- 2.2
Tohoku	13,708	13,397	- 2.3	588,382	580,211	- 1.4	18,619,645	18,107,648	- 2.7	6,119,545	5,982,172	- 2.2
Japan	185,116	181,877	- 1.7	7,778,124	7,717,646	- 0.8	331,809,377	322,533,418	- 2.8	104,300,710	100,234,752	- 3.9

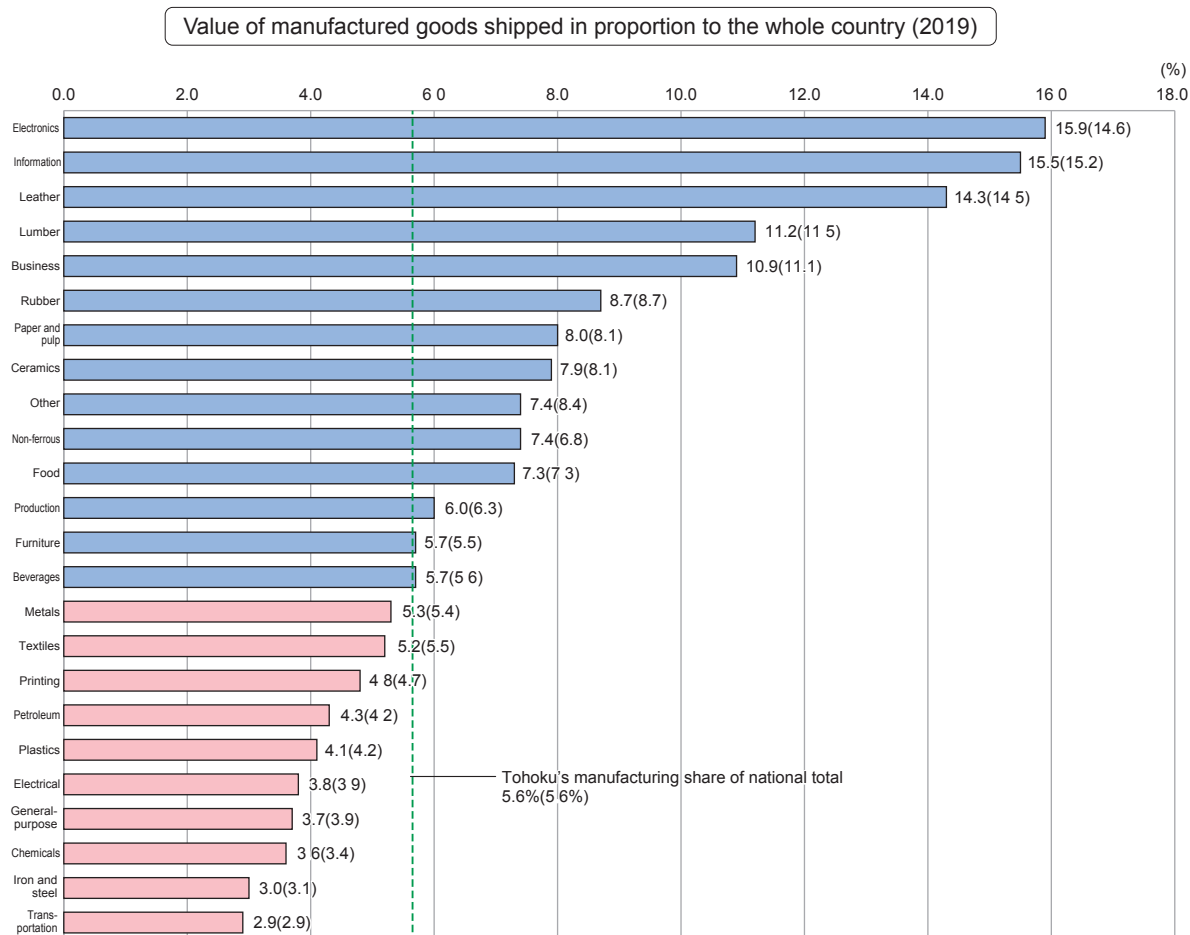
Note: The numbers of business establishments and employees are as of June 1.

Source: Census of Manufacture (business establishments with 4 or more employees)

(ii) National Share by Industry Sector

Tohoku has a high national share for electronic parts, devices, electronic circuits, and information and communication electronics equipment.

- Tohoku's share of the value of manufactured goods shipped in Japan by industry in 2019 was large for electronic parts / devices / electronic circuits 15.9%, information and communication machinery 15.5%, while it was small for iron and steel 3.0%, transportation equipment 2.9%.



Note: The tanned leather / related product / fur manufacturing industry and telecommunications equipment manufacturing industry are included in the total of the five prefectures except for Aomori to conceal the individual data of its surveyed manufacturer(s).

The figures in brackets () represent the share of the national total in 2018.

Source: *Census of Manufacture (business establishments with 4 or more employees)*

<Reference> Abbreviations for industry sectors in the above graph refer to the following:

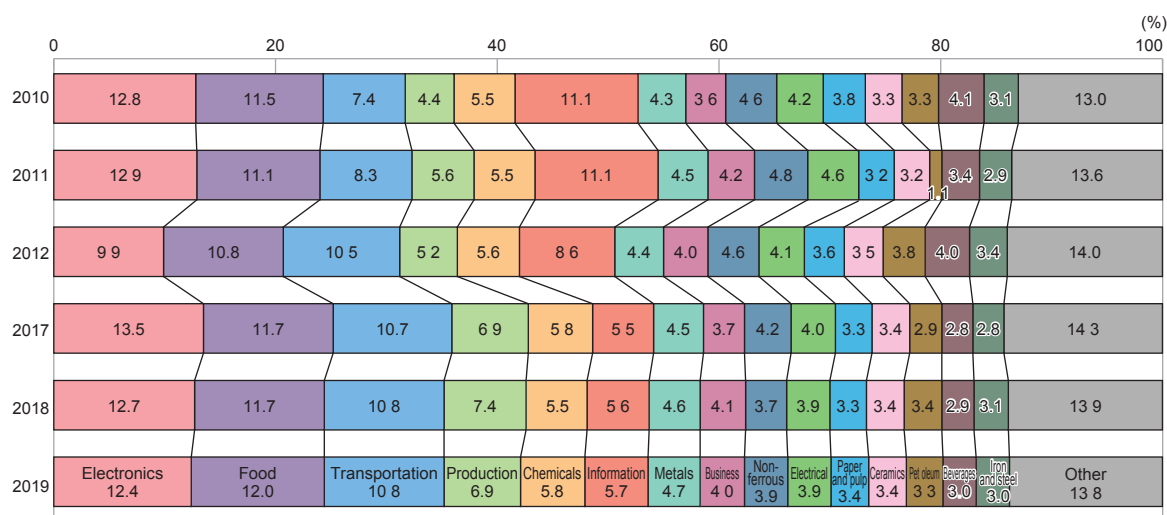
Middle division of industrial classification	Abbreviation	Middle division of industrial classification	Abbreviation	Middle division of industrial classification	Abbreviation
Manufacture of food	Food	Manufacture of petroleum and coal products	Petroleum	Manufacture of general-purpose machinery	Generalpurpose
Manufacture of beverages, tobacco and feed	Beverages	Manufacture of plastic products (except other listing)	Plastics	Manufacture of production machinery	Production
Manufacture of textile products	Textiles	Manufacture of rubber products	Rubber	Manufacture of business-oriented machinery	Business
Manufacture of lumber and wood products (except furniture)	Lumber	Manufacture of leather tanning, leather products and fur skins	Leather	Manufacture of electronic parts, devices and electronic circuits	Electronics
Manufacture of furniture and fixtures	Furniture	Manufacture of ceramic, stone and clay products	Ceramics	Manufacture of electrical machinery, equipment and supplies	Electrical
Manufacture of pulp, paper and paper products	Paper and pulp	Manufacture of iron and steel	Iron and steel	Manufacture of information and communication electronics equipment	Information
Printing and allied industries	Printing	Manufacture of non-ferrous metals and products	Non-ferrous	Manufacture of transportation equipment	Transportation
Manufacture of chemical and allied products	Chemicals	Manufacture of metal products	Metals	Other manufacturing	Other

(iii) Shares of Industry Sectors by Year and Prefecture

The industry sectors of electronic parts, devices and electronic circuits; food; and transportation equipment rank high in the value of manufactured goods shipped in the Tohoku region.

- In 2019, out of the 24 manufacturing industry sectors in the Tohoku region, six sectors (electronic parts; devices and electronic circuits; food; transportation equipment; production machinery; chemical and allied products; and information and communication electronics equipment) accounted for about 50% of the value of manufactured goods shipped in the Tohoku region. The share of industry sectors has been almost flat in recent years.

Yearly Changes in the Share of Industry Sectors by Value of Manufactured Goods Shipped in the Tohoku Region

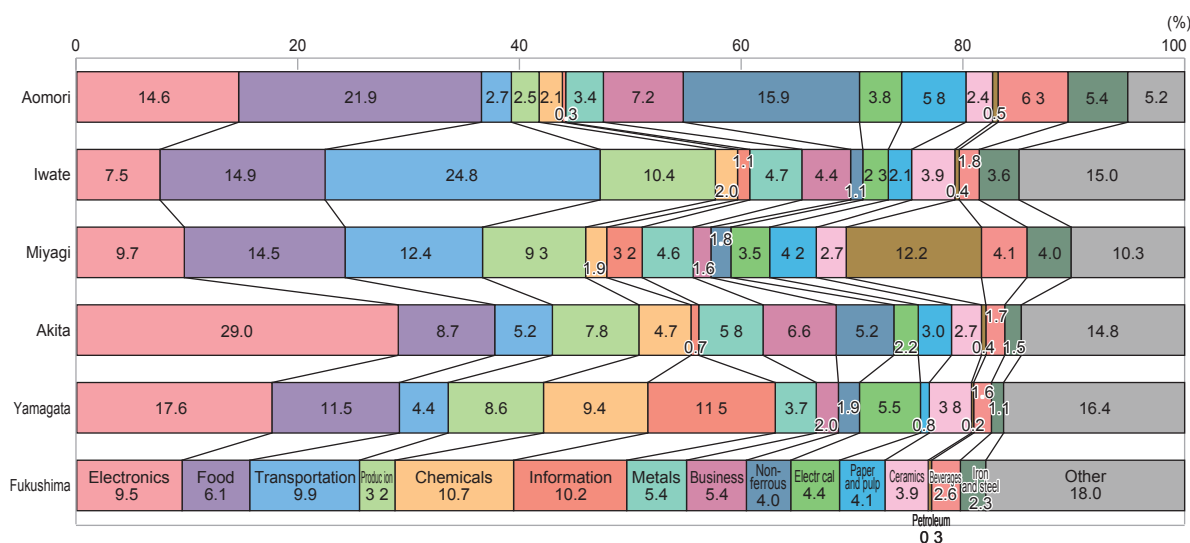


Note: The figures for the industry sector of information and telecommunications equipment in 2018 are totals of five prefectures except for Aomori which conceals the individual data of its surveyed manufacturer(s).

Source: *Economic Census for Business Activity (business establishments with 4 or more employees)* and *Census of Manufacture (business establishments with 4 or more employees)*.

- The industry sectors with the largest share in each prefecture were as follows: food in Aomori and Miyagi, transportation equipment in Iwate, electronic parts, devices and electronic circuits in Akita and Yamagata, and Chemicals in Fukushima.

Shares of Industry Sectors by Value of Manufactured Goods Shipped in Each of the Six Tohoku Prefectures (2019)



Note: The following industry sectors make up only a small percentage in the Tohoku region compared to other sectors and are therefore classified as "Other":

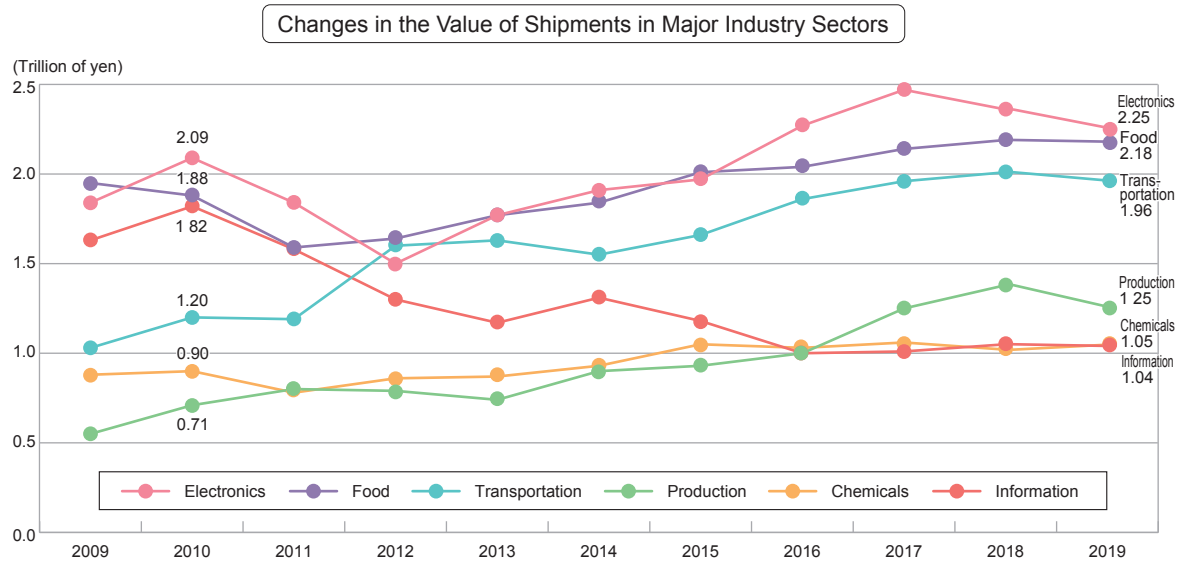
They include textile products; lumber and wood products; furniture and fixtures; printing and allied industries; plastic products; rubber products; leather tanning, leather products and fur skins; general-purpose machinery; and other manufacturing.

Source: *Census of Manufacture (business establishments with 4 or more employees)*

(iv) Value of Manufactured Goods Shipped from Major Industry Sectors and Value-added Productivity by Region

The value of manufactured goods shipped in the Tohoku region from five out of the top six industry sectors exceeded that in 2010.

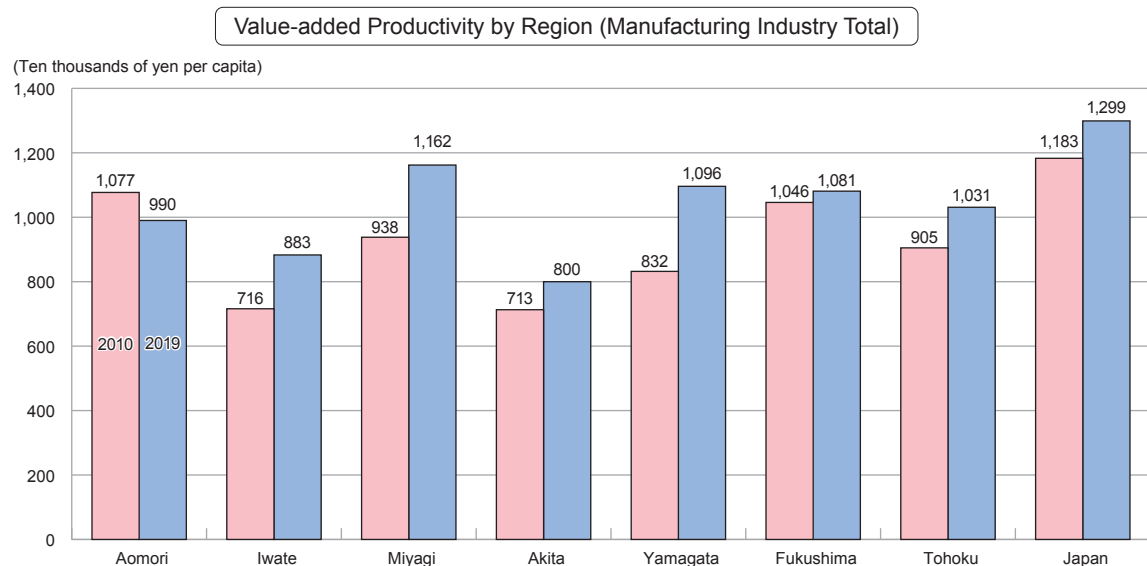
- In 2019, the value of manufactured goods shipped in the Tohoku region exceeded that in 2010 for all five out of the top six industry sectors before the Great East Japan Earthquake. The shipment value of the food manufacturing industry and the transportation machinery and equipment manufacturing industry was the second highest, and the chemical and allied product industry and production machinery and equipment manufacturing industry reached the third highest.



Note: The figures for the industry sector of information and telecommunications equipment in 2016, 2017 and 2018 are totals of five prefectures except for Aomori to conceal the individual data of its surveyed manufacturer(s).

Source: *Economic Census for Business Activity (business establishments with 4 or more employees)* and *Census of Manufacture (business establishments with 4 or more employees)*

- The value-added productivity in the Tohoku region in 2019 was 10.31 million yen per capita, and the Japan total was 12.99 million yen per capita. This is a level of 79.4 compared to Japan (= 100), which exceeds 76.5 in 2010 before the Great East Japan Earthquake. (Reference: 2011 68.8)



Note: Value-added productivity is the value-added amount per employee (Ten thousands of yen per capita).

The number of employees as of June 1, 2020 was used to calculate the value-added productivity of 2019.

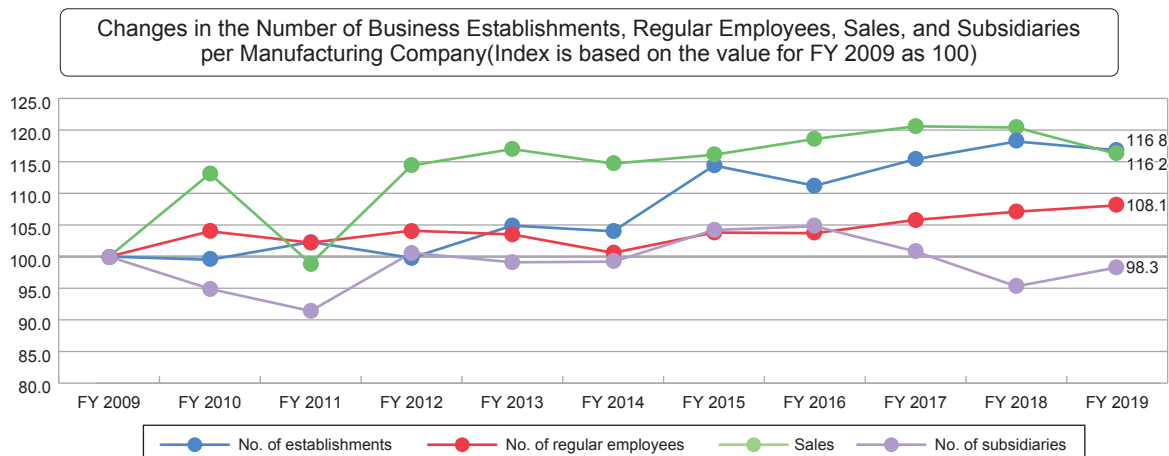
Source: *Census of Manufacture (business establishments with 4 or more employees)*

(v) Manufacturing Companies Headquartered in the Tohoku Region

Profit margin declines, total capital per company increases, and R&D expense ratio to sales rises.

● Number of business establishments and regular employees per company

Manufacturing companies headquartered in the Tohoku region (770 companies) had, on average, 3.631 business establishments, including plants/factories and sales offices (a 1.2% decrease year-on-year); 248.8 regular employees (a 0.9% increase year-on-year); 7.994 billion yen in sales (a 3.5% decrease year-on-year); and 0.692 subsidiaries (a 3.1% increase year-on-year) per company.



Number of Business Establishments and Other Indicators per Manufacturing Company

	No. of establishments		No. of regular employees		Sales (Hundred millions of yen)		No. of subsidiaries	
	Tohoku	Japan	Tohoku	Japan	Tohoku	Japan	Tohoku	Japan
FY 2017	3.587	5.978	243.5	417.7	83.01	225.17	0.710	4.128
FY 2018	3.674	5.965	246.7	415.4	82.82	227.86	0.671	3.946
FY 2019	3.631	5.938	248.8	414.9	79.94	217.28	0.692	3.900
Fiscal YoY change (%)	- 1.2	- 0.5	0.9	- 0.1	- 3.5	- 4.6	3.1	- 1.2

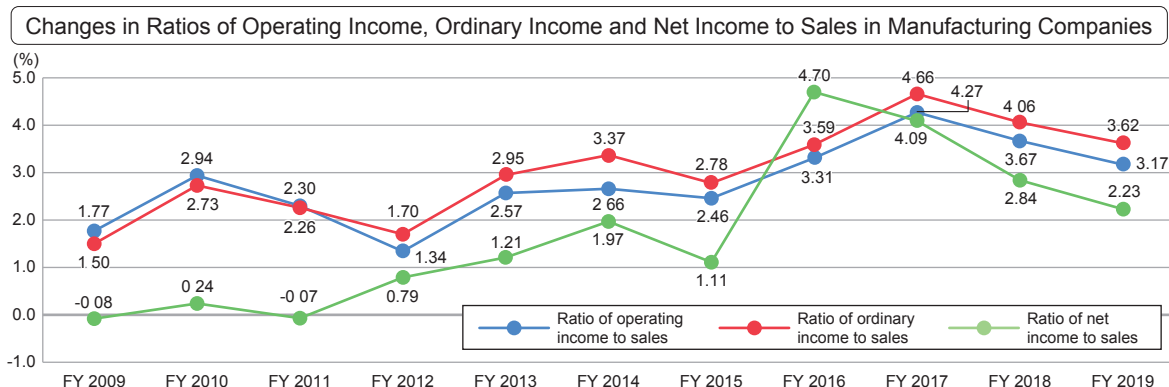
Note 1: The Basic Survey of Japanese Business Structure and Activities applies to companies with 50 or more employees and a capital amount or equity investment amount of 30 million yen or more.

Note 2: The number of owned subsidiaries per company is calculated by the number of subsidiaries / total number of companies.

Source: Basic Survey of Japanese Business Structure and Activities, Ministry of Economy, Trade and Industry

● Ratio of operating income to sales, etc.

The ratio of operating income to sales for manufacturing companies headquartered in the Tohoku region was 3.17% (a 0.50 percentage point decrease year-on-year), while the ratio of ordinary income to sales was 3.62% (a 0.45 percentage point decrease year-on-year) and the ratio of net income to sales was 2.23% (a 0.61 percentage point decrease year-on-year).

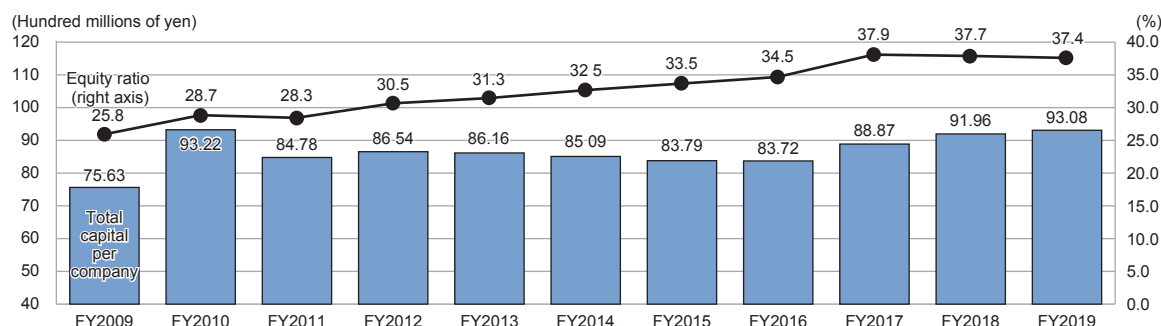


Source: Basic Survey of Japanese Business Structure and Activities, Ministry of Economy, Trade and Industry

● Equity ratio, etc.

Manufacturing companies headquartered in the Tohoku region had total capital (total assets) per company of 9.308 billion yen (a 1.2% increase year-on-year), net assets of 3.480 billion yen (a 0.3% increase year-on-year), and equity ratio of 37.4% (a decrease in 0.3 percentage point from the previous year).

Changes in Total Capital (Total Assets) per Company and Equity Ratio in Manufacturing Industry



Average Ratio of Operating Income to Sales and Other Indicators per Company in the Manufacturing Industry

	Ratio of operating income to sales (%)		Ratio of ordinary income to sales (%)		Ratio of net income to sales (%)		Total capital (Hundred millions of yen)		Net assets (Hundred millions of yen)		Equity ratio (%)	
	Tohoku	Japan	Tohoku	Japan	Tohoku	Japan	Tohoku	Japan	Tohoku	Japan	Tohoku	Japan
FY 2017	4.27	5.46	4.66	7.73	4.09	5.79	88.87	275.8	33.68	140.3	37.9	50.9
FY 2018	3.67	4.81	4.06	7.27	2.84	5.20	91.96	275.4	34.70	141.7	37.7	51.4
FY 2019	3.17	3.62	3.62	6.04	2.23	3.34	93.08	266.9	34.80	136.0	37.4	50.9
Fiscal YoY change	-0.50	-1.19	-0.45	-1.24	-0.61	-1.86	1.2	-3.1	0.3	-4.1	-0.3	-0.5

Note 1: Fiscal YoY change for total capital and net assets represents the change from the previous fiscal year (%)

Note 2: Equity ratio = Net assets (Equity)/Total capital. Generally, the higher the ratio, the smaller the liabilities of a company.

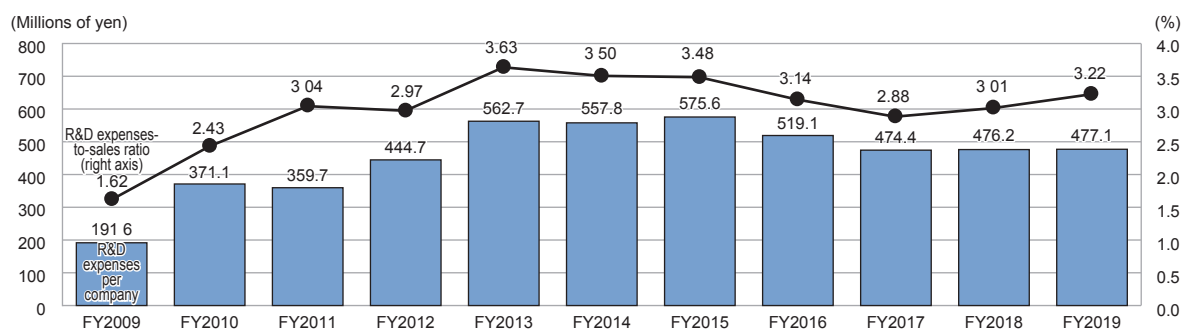
Source: Basic Survey of Japanese Business Structure and Activities, Ministry of Economy, Trade and Industry

● Research and Development (R&D)

Of the 770 manufacturing companies headquartered in the Tohoku region, 207 companies reported their R&D expenses, representing 26.9% of the total (cf. 47.9% for Japan).

R&D expenses-to-sales ratio was 3.22% (a 0.21 percentage point increase year-on-year). R&D expenses per company were 477.1 million yen (a 0.2% increase year-on-year).

Changes in the R&D Expenses-to-Sales Ratio and the R&D Expenses per Company in the Manufacturing Industry



R&D Expenses in Manufacturing Companies

	No. of companies that reported to the Basic Survey of Japanese Business Structure and Activities		No. of companies that reported their R&D expenses				Ratio of R&D expenses to sales (%)		R&D expenses per company (millions of yen)	
	Tohoku	Japan	No. of companies	Response ratio (%)	No. of companies	Response ratio (%)	Tohoku	Japan	Tohoku	Japan
FY 2017	768	12,705	195	25.4	6,174	48.6	2.88	5.02	474.4	1,971.2
FY 2018	773	12,826	197	25.5	6,160	48.0	3.01	4.83	476.2	1,943.7
FY 2019	770	12,712	207	26.9	6,086	47.9	3.22	5.08	477.1	1,959.0
Fiscal YoY change	-3	-114	10	1.4	-7.4	-0.2	0.21	0.25	0.2	0.8

Note: Fiscal YoY change in R&D expenses per company represents the change from the previous fiscal year (%)

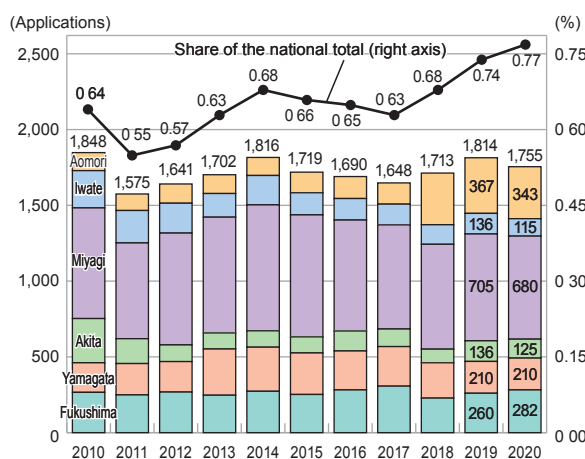
Source: Basic Survey of Japanese Business Structure and Activities, Ministry of Economy, Trade and Industry

(vi) Industrial Property Rights

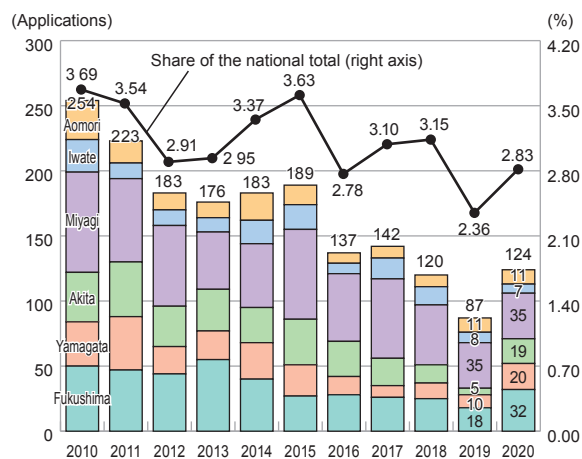
The number of applications for industrial property rights is increasing for utility models while it is decreasing for patents, trademarks and designs.

- The number of applications for industrial property rights made in 2020 in the Tohoku region was 1,755 for patents, 124 for utility models, 372 for designs, and 2,493 for trademarks, with a year-on-year increase in utility model applications, and a year-on-year decrease in patent, trademark and design applications.
- Looking at the national ratio, patents are increasing, designs are flat, utility models and trademarks are decreasing.
- Comparing the number of applications by prefecture with the previous year, the number of patents in Fukushima increased, Yamagata remained unchanged, and the other four prefectures decreased. Regarding utility models, Akita, Yamagata, and Fukushima are increasing, Aomori and Miyagi are flat, and Iwate is decreasing. Regarding designs, Akita and Yamagata prefectures have decreased, and the other four prefectures have increased. Regarding trademarks, Aomori, Akita, and Yamagata increased, while Iwate, Miyagi, and Fukushima decreased.

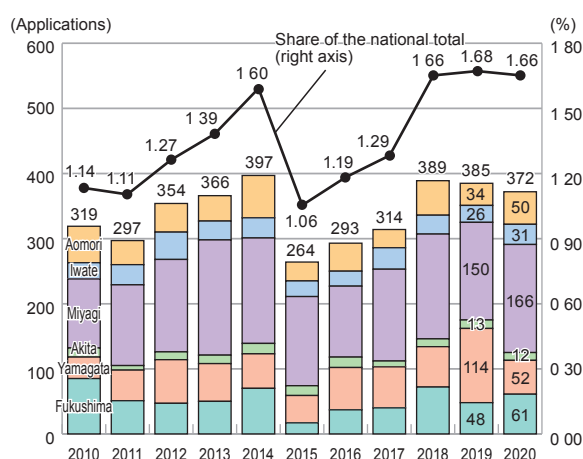
Changes in the Number of Patent Applications



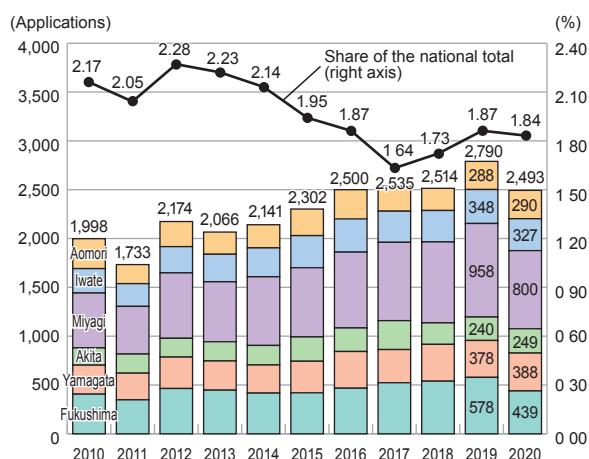
Changes in the Number of Utility Model Applications



Changes in the Number of Design Applications



Changes in the Number of Trademark Applications



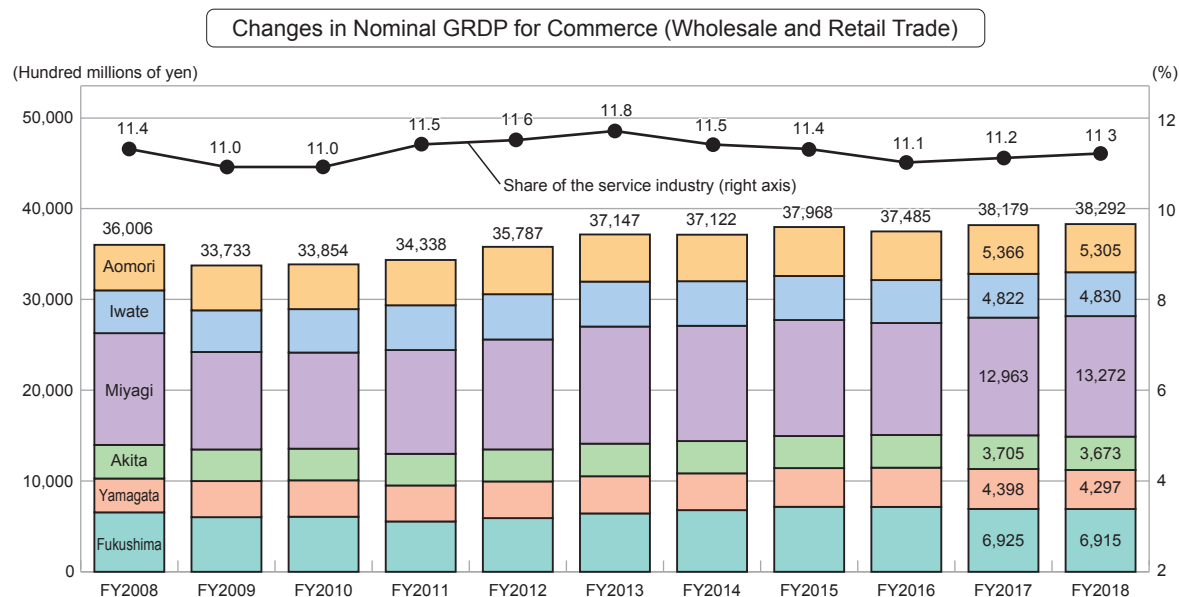
Source: Japan Patent Office Annual Report, Japan Patent Office

(2) Commerce

(i) Overview

For both wholesale and retail trades, the number of business establishments and employees have decreased, but show an increase in annual sales.

- The GRDP for commerce in the Tohoku region in FY2018 was 3,829.2 billion yen, an increase of 0.3% from the previous year, the second consecutive year of increase.
- The share of commerce in all-industry GRDP (nominal) in the Tohoku region was 11.3%, an increase of 0.1 points from the previous year.
- The total production value by prefecture increased year-on-year in Iwate and Miyagi prefectures.



Source: Annual Report on Prefectural Accounts

- In 2016, the total number of wholesale and retail establishments in the Tohoku region was 107,899 (down 2.8% from the 2014 survey; that of Japan also declined 3.7% during the same period), while the number of employees declined to 765,337 (down 1.4% from the 2014 survey; down 0.2% for Japan). Total annual sales of goods stood at 28,916.2 billion yen (up 17.9% from the 2014 survey; up 21.5% for Japan).
- For both wholesale and retail trades, the number of business establishments and employees decreased despite an increase in annual sales.

Changes in the Number of Business Establishments, Number of Employees, and Annual Sales of Goods

		No. of business establishments				No. of employees				Annual sales of goods (*Sales during the calendar year immediately preceding the year of the survey)			
		Share of national total (%)	Changes from the previous census (%)		Share of national total (%)	Changes from the previous census (%)		(Millions of yen)	Share of national total (%)	Changes from the previous census (%)			
			Tohoku	Japan		Tohoku	Japan			Tohoku	Japan		
Commerce total	2014	111,008	7.9	-	776,029	6.7	-	24,528,243	5.1	-	-		
	2016	107,899	8.0	-2.8	765,337	6.6	-1.4	28,916,184	5.0	17.9	21.5		
Wholesale	2014	27,511	7.2	-	220,524	5.6	-	15,545,466	4.4	-	-		
	2016	26,654	7.3	-3.1	217,845	5.5	-1.2	18,596,674	4.3	19.6	22.4		
Retail	2014	83,497	8.1	-	555,505	7.2	-	8,982,777	7.4	-	-		
	2016	81,245	8.2	-2.7	547,492	7.2	-1.4	10,319,509	7.1	14.9	18.8		

Note 1: The number of business establishments and the number of employees were as of July 1, 2014 and as of June 1, 2016, respectively.

Note 2: Changes from the previous census in the number of business establishments, number of employees, and annual sales of goods are based on comparison between 2014 and 2016.

Note 3: Total annual sales refer to the sales of goods during the calendar year immediately preceding the year of the survey.

Note 4: The business establishments include those that engaged in administrative or ancillary economic activity, those that could not be categorized by minor groups, those that had no sales for wholesale goods (except for commission fees), and those that had no sales for retail goods and no commission fees.

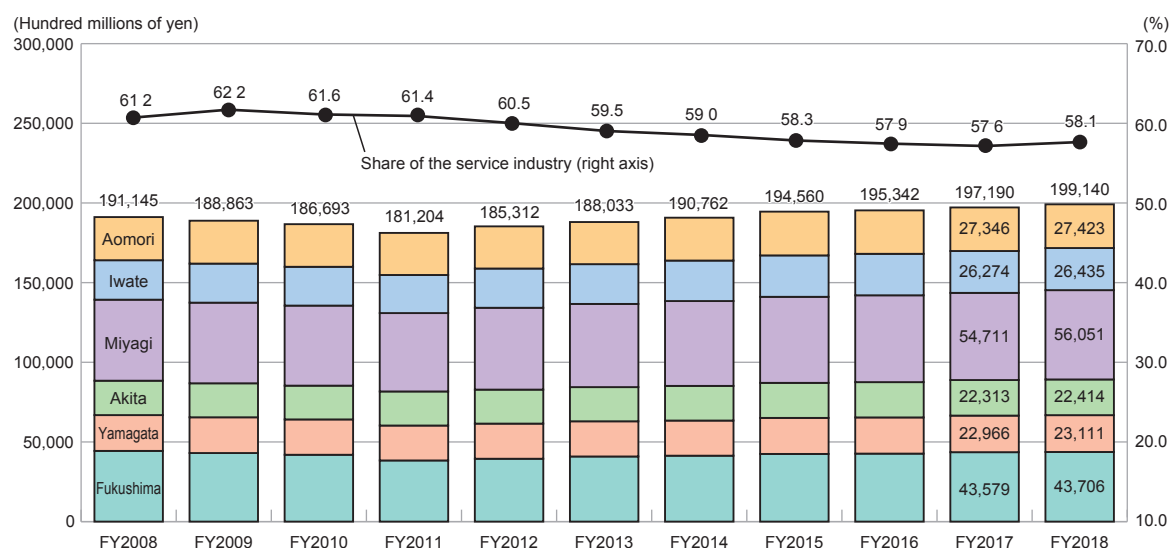
Source: 2016 Economic Census for Business Activity, Aggregation by Industry Group (Wholesale and Retail Trades) Table 1

(3) Service Industry

The GRDP in the service industry in the Tohoku region has increased for the seventh consecutive year.

- The GRDP in the service industry in the Tohoku region in FY 2018 was 19,914.0 billion yen, an increase of 1.0% from the previous year, and the seventh consecutive year of increase.
- The share of the service industry in all-industry GRDP (nominal) increased by 0.5 percentage points year-on-year to 58.1%, showing an upward turn for the first time in nine years.

Changes in Nominal GRDP for the Service Industry

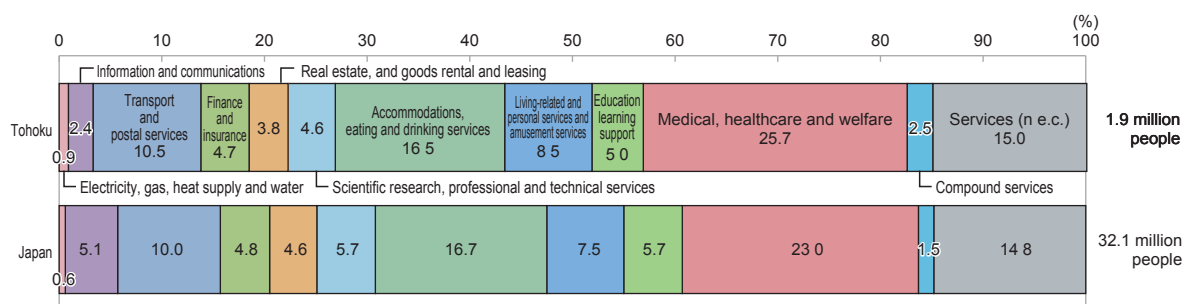


Note: The service industries in the above graph include electricity, gas and water supply, and waste management service; transport and postal services; accommodation and food service activities; telecommunications; finance and insurance; real estate; specialized, scientific and technical activities; business support service activities; public administration; education; human health and social work activities; and other service activities.

Source: Annual Report on Prefectural Accounts

- The number of service industry employees in the Tohoku region (as of June 1, 2016) was 1.9 million. By industry (major group category), 25.7% worked in “medical, healthcare and welfare,” followed by “accommodations, eating and drinking services” at 16.5%, and “services, n. e. c.” at 15.0%.
- Compared to Japan, the Tohoku region has a large share of employees in “medical, healthcare and welfare” and a small share in “telecommunications.”

Breakdown of Employees Engaged in Service Industries by Major Group Category



Note: The service industries in the above graph refer to the major group categories of industries in the Japan Standard Industry Classification (revised in October 2013), from "Division F - Electricity, gas, heat supply and water" to "R - Services, n. e. c." The graph excludes employees engaged in "I - Wholesale and retail trade."

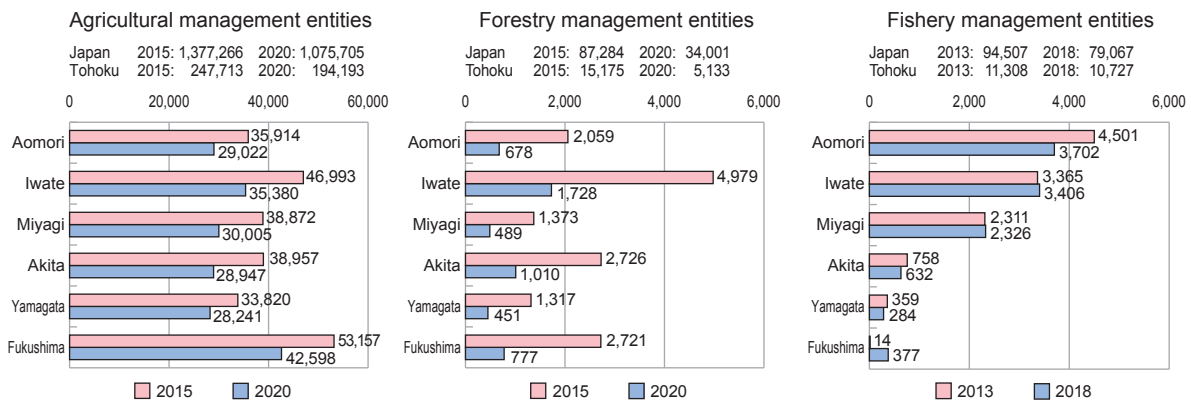
Source: 2016 Economic Census for Business Activity

(4) Agriculture, Forestry, and Fisheries

The output of all agriculture, forestry and fisheries has decreased, but its national share has increased.

- In 2020, the number of agricultural management entities in the Tohoku region was 194,193 (down 21.6% from the 2015 survey, down 21.9% nationwide), and the number of forestry management entities was 5,133 (down 66.2% from the 2015 survey, 61.0% decrease nationwide), and the number of fishery management entities in the Tohoku region in 2018 was 10,727 management entities (down 5.1% from the 2013 survey, down 16.3% nationwide).

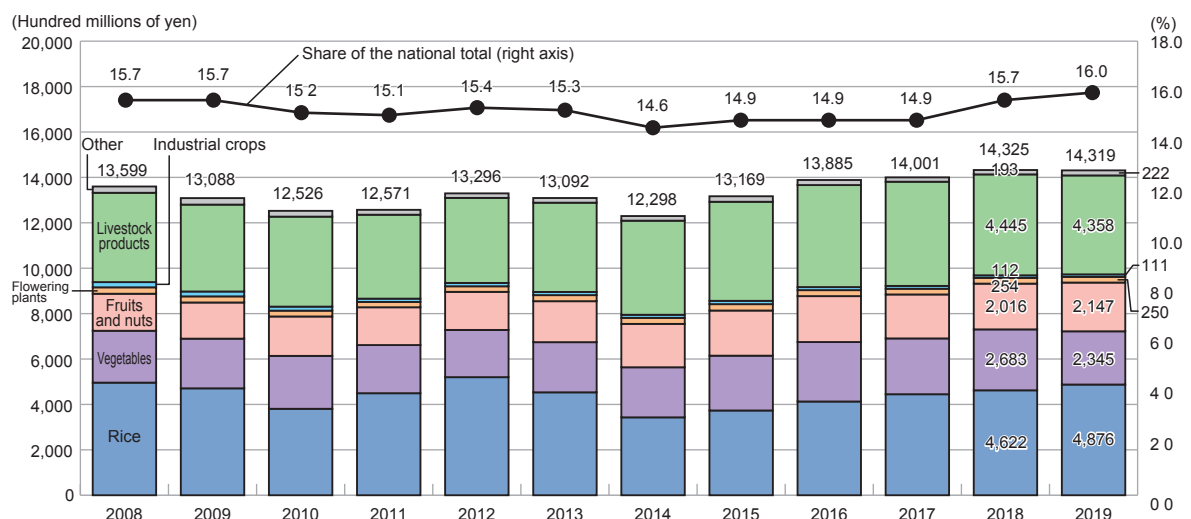
Agricultural, Forestry and Fishery Management Entities



Source: Census of Agriculture and Forestry (as of February 1 each year) and Census of Fisheries (as of November 1 each year)

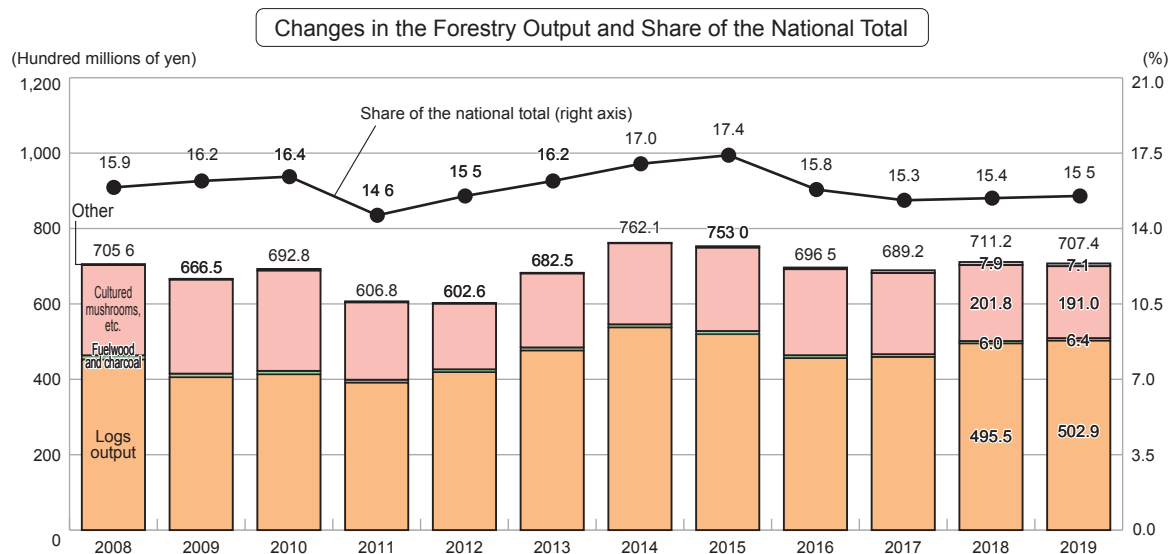
- In 2019, the value of output for agriculture in the Tohoku region was 1,431.9 billion yen. It is 16.0% of the national total of 8,938.7 billion yen for agriculture. Its share increased 0.3 percentage points year-on-year. Rice had the largest share in the value of agricultural output in the Tohoku region at 34.1% with 487.6 billion yen, followed by livestock products at 30.4% with 435.8 billion yen.

Changes in the Agricultural Output and Share of the National Total



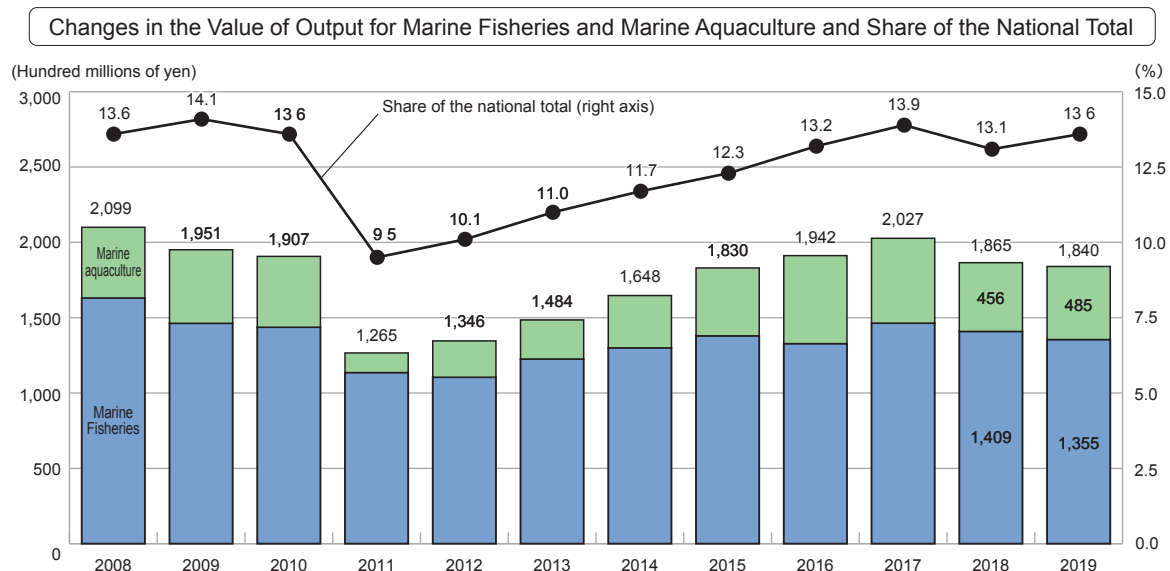
Source: Pocket Tohoku Agriculture, Forestry and Fisheries Statistics Annual Report

- In 2019, the value of forestry output in the Tohoku region was 70.74 billion yen. It is 15.5% of the national total of 454.92 billion yen for forestry. Its share increased 0.1 percentage points year-on-year. By commodity, timber production was 50.29 billion yen, accounting for 71.1% of the forestry output in the Tohoku region. Cultivated mushroom production was 19.10 billion yen, 27.0% of the forestry output in the Tohoku region.



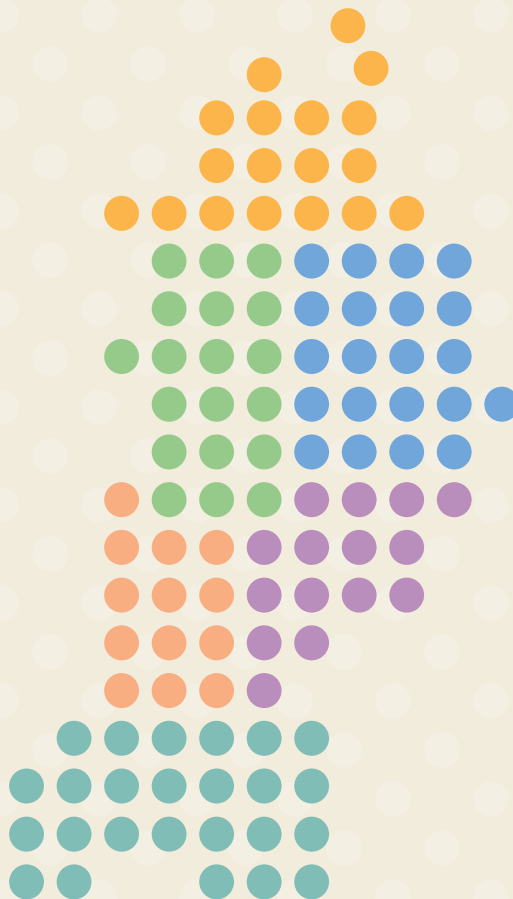
Source: *Forestry Output*, Ministry of Agriculture, Forestry and Fisheries

- In 2019, the value of output for marine fisheries and marine aquaculture in the Tohoku region was 184.0 billion yen. It is 13.6% of the national total of 1,348.4 billion yen. Its share of the national total increased 0.5 percentage points year-on-year. By sector, the value of output for marine fisheries was 135.5 billion yen, followed by marine aquaculture with 48.5 billion yen.



Note: The figures for 2008 and 2009 are the totals except for Akita, Yamagata and Fukushima to conceal the individual data of their surveyed marine aquaculture producer(s).
 The figures for 2010 are the totals except for Akita and Yamagata to conceal the individual data of their surveyed marine aquaculture producer(s).
 The figures for 2011, 2012 and 2013 are the totals except for Yamagata and Fukushima to conceal the individual data of their surveyed marine aquaculture producer(s).
 The figures for 2014 and 2015 are the totals except for Yamagata to conceal the individual data of its surveyed marine aquaculture producer(s).
 The figures for 2016 are the totals except for Yamagata to conceal the individual data of its surveyed marine fishery and marine aquaculture producer(s).

Source: *Fishery Output*, Ministry of Agriculture, Forestry and Fisheries



2021

ECONOMIC OVERVIEW OF TOHOKU REGION