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Topic 1: Population Census and Household Surveys

THE PROCESSING SYSTEM AND CHALLENGES FOR THE 2010 POPULATION CENSUS

Ken-ichi KOMAGATA
Deputy Director-General
National Statistics Center
Japan



**National
Statistics Center**

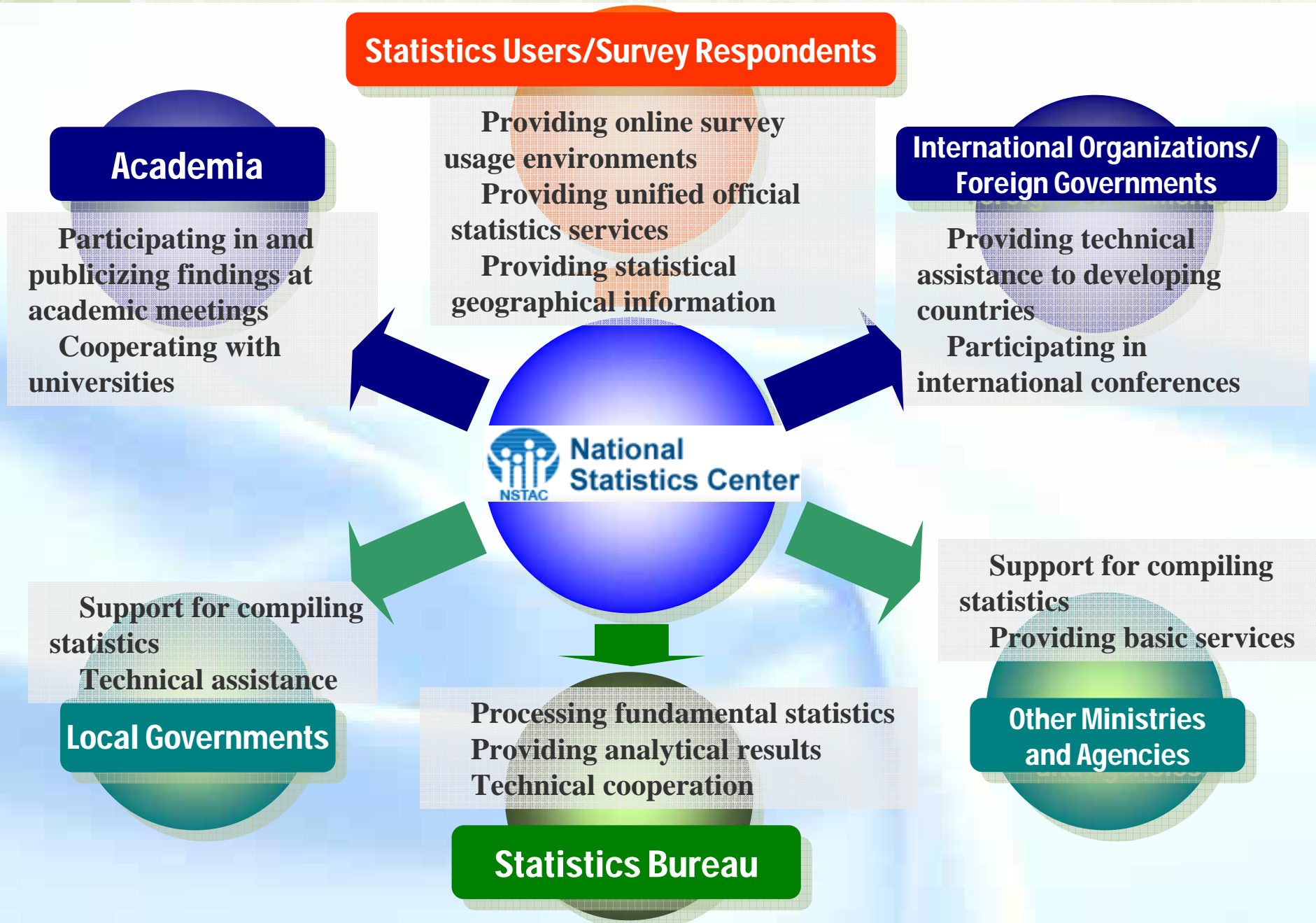
How do we play a vital role in the Population Census ?

1. The Role of the National Statistics Center

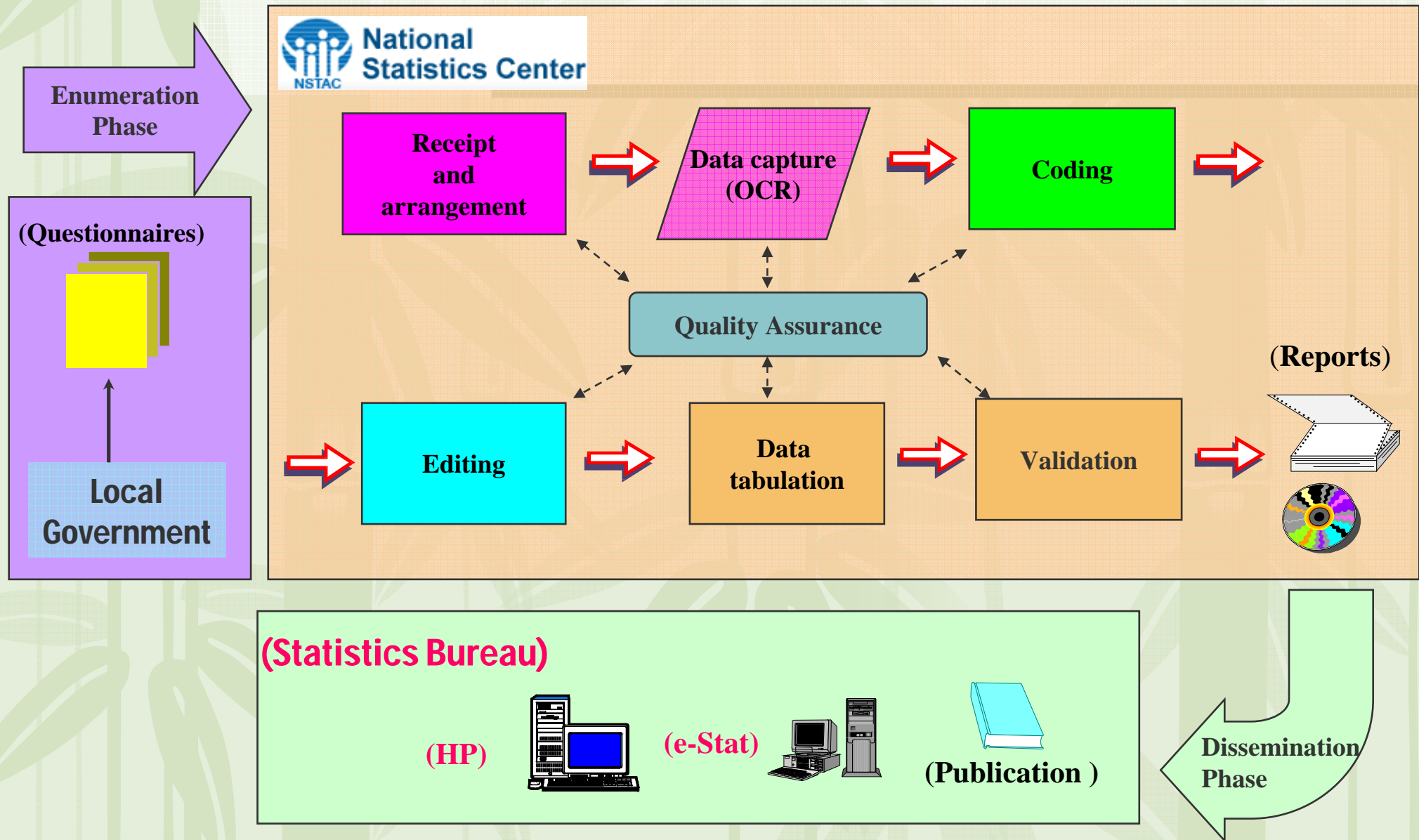
**2. Data processing flow and
Tabulation stages of the Population Census**

3. Challenges for the 2010 Population Census

1. The Role of the National Statistics Center (NSTAC)



2-1. Data processing flow of the Population Census



2-2. Tabulation stages of the 2005 Population Census (Oct. 2005)

1 Prompt Tabulation

(1) Preliminary Counts of the Population on the Basis of Summary Sheets (Dec. 2005)

The population by sex and the number of households for each municipality nationwide.

(2) Prompt Sample Tabulation (Jun. 2006)

Using sample households with a sampling ratio of approximately one to one hundred.

2 Basic Complete Tabulation

(1) The First Basic Complete Tabulation (Oct. 2006)

Sex, age, and marital status of population, structure and housing conditions of households

(2) The Second Basic Complete Tabulation (Jan. 2007)

Labour force status of population, industry (major groups) of employed persons

(3) The Third Basic Complete Tabulation (Dec. 2007)

Occupation (major groups) of employed persons, types of household

3 Detailed Sample Tabulation

(Dec. 2008)

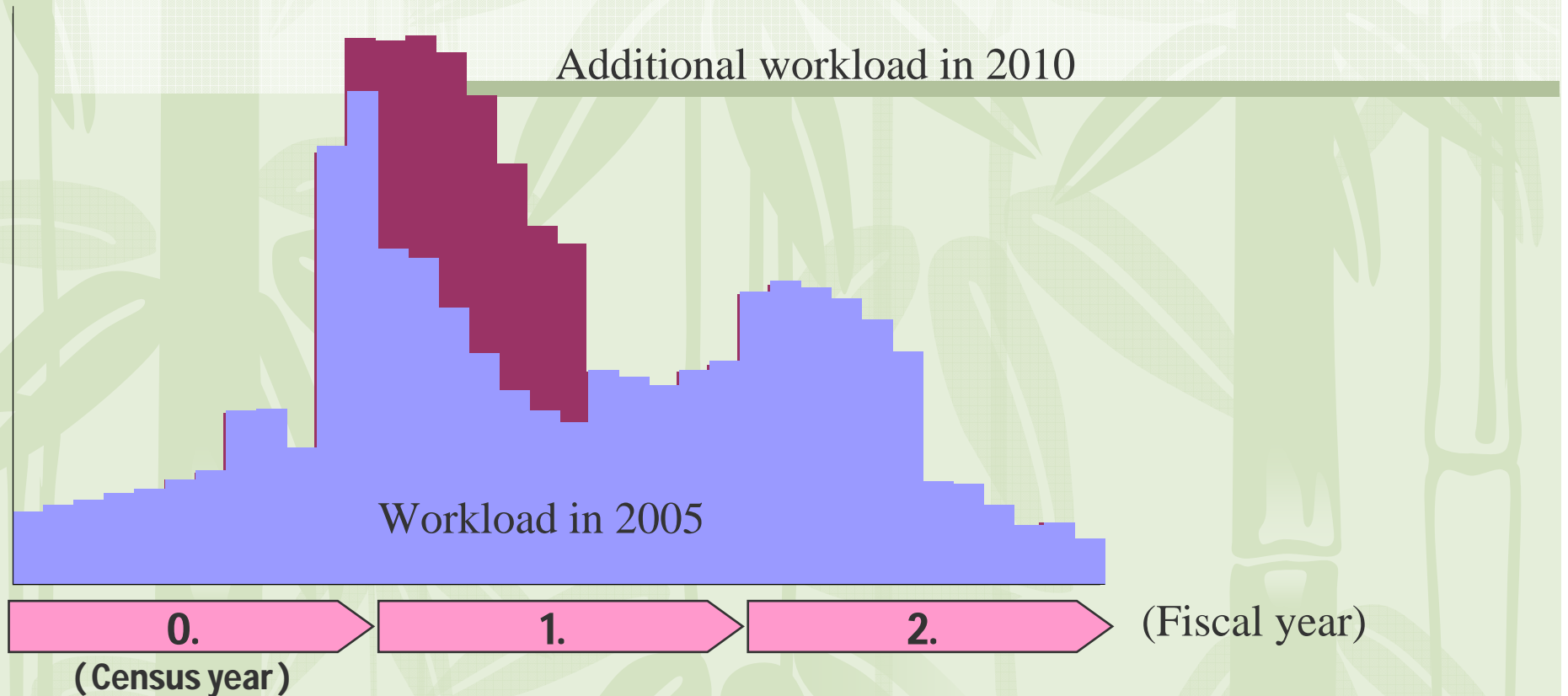
Industry (minor groups) and occupation (minor groups) of employed persons (sample tabulation results)

4 Tabulation for Small Area

5 Tabulation on Place of Work or Schooling

3. Challenges for the 2010 Population Census

- Solution to the huge workload of 60 million questionnaires sheets -



Use of mail-back method

Heavier burden on Local Government (L.G.)

Need to reduce workload of L.G.

Shifting of Coding workload (Industry) from L.G. to NSTAC

Additional workload of NSTAC

How to manage the huge workload ?

- 1 Improved editing & imputation system**
~Address the increase of item non-responses and keep quality
- 2 Introducing Auto-coding system**
~Improve the efficiency and curve the workload
- 3 Involving the private sector**

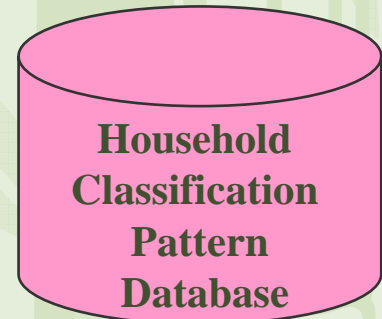
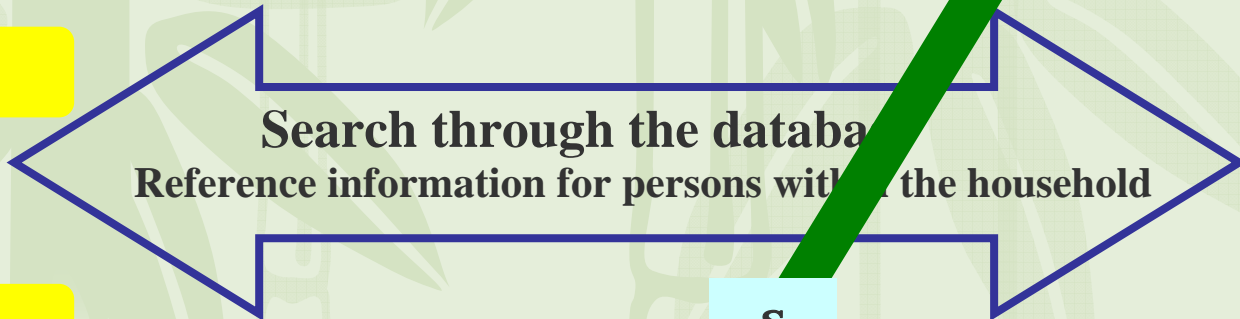
3-1. Household Classification Imputation System



1st			2nd			3rd		
Relation-ship	Sex	Marital status	Relation-ship	Sex	Marital status	Relation-ship	Sex	Marital status
HH	m	m	spouse	f	m	?	m	nm

Missing data or Inconsistent data

Editing



Imputation

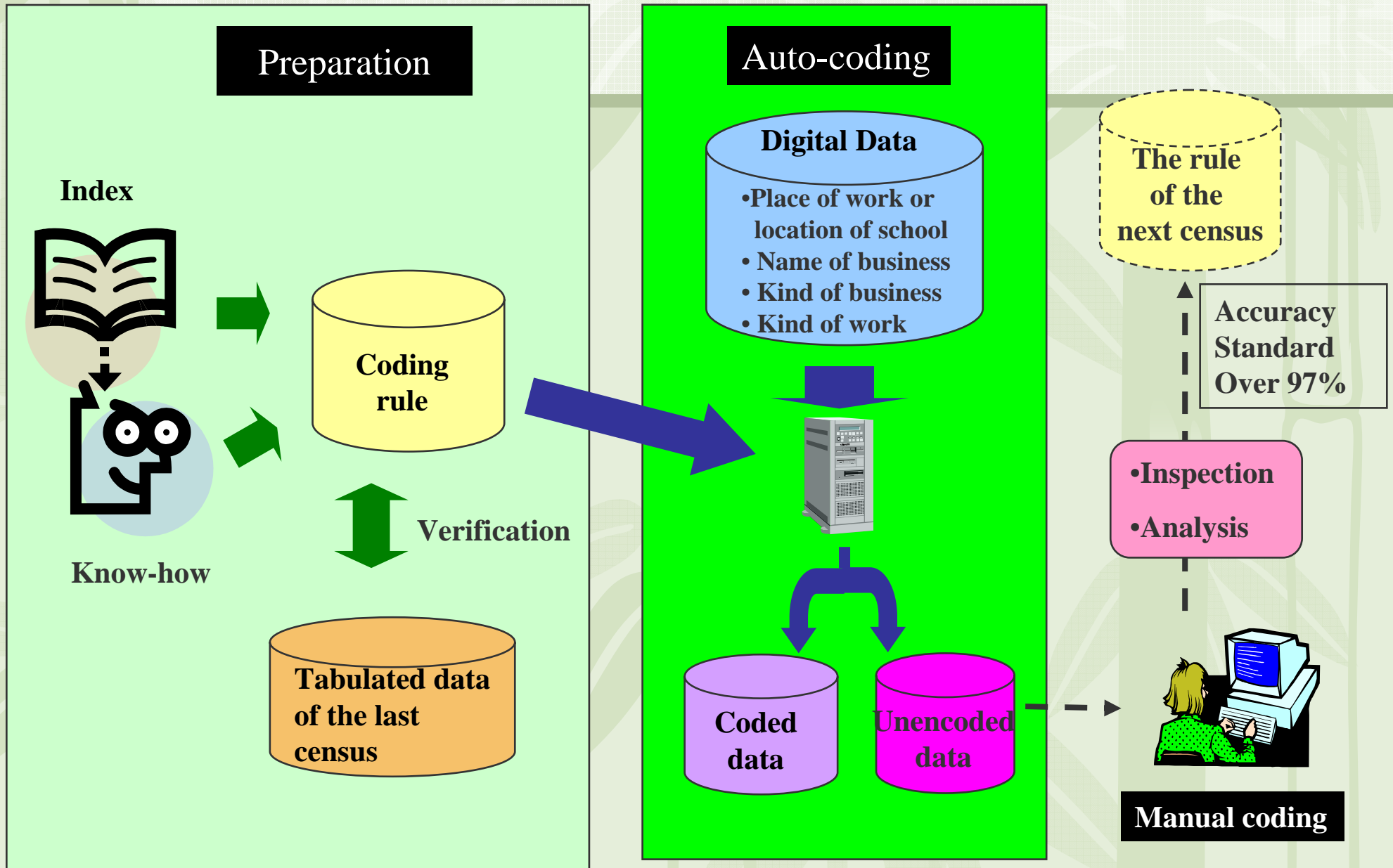
S

11 thousand records

No	1st			2nd			3rd			4th			5th		
	Relation-ship	Sex	Marital status	Relation-ship	Sex	Marital status	Relation-ship	Sex	Marital status	Relation-ship	Sex	Marital status	Relation-ship	Sex	Marital status
1	HH	male	married	spouse	female	married	s/d	m/f	nm						
2	HH	male	married	spouse	female	married									
3	HH	female	w/d	s/d	m/f	nm									
4	HH	male	married	spouse	female	married	s/d	m/f	nm	parent	female	w/d			
5	HH	male	married	male	female	married	s/d	male	married	spouse of s/d	female	married	gs/gd	m/f	nm

note) HH: Head of Household s/d: son or daughter m/f: male or female
 nm: not married w/d: widow or divorce gs/gd: grandson or granddaughter

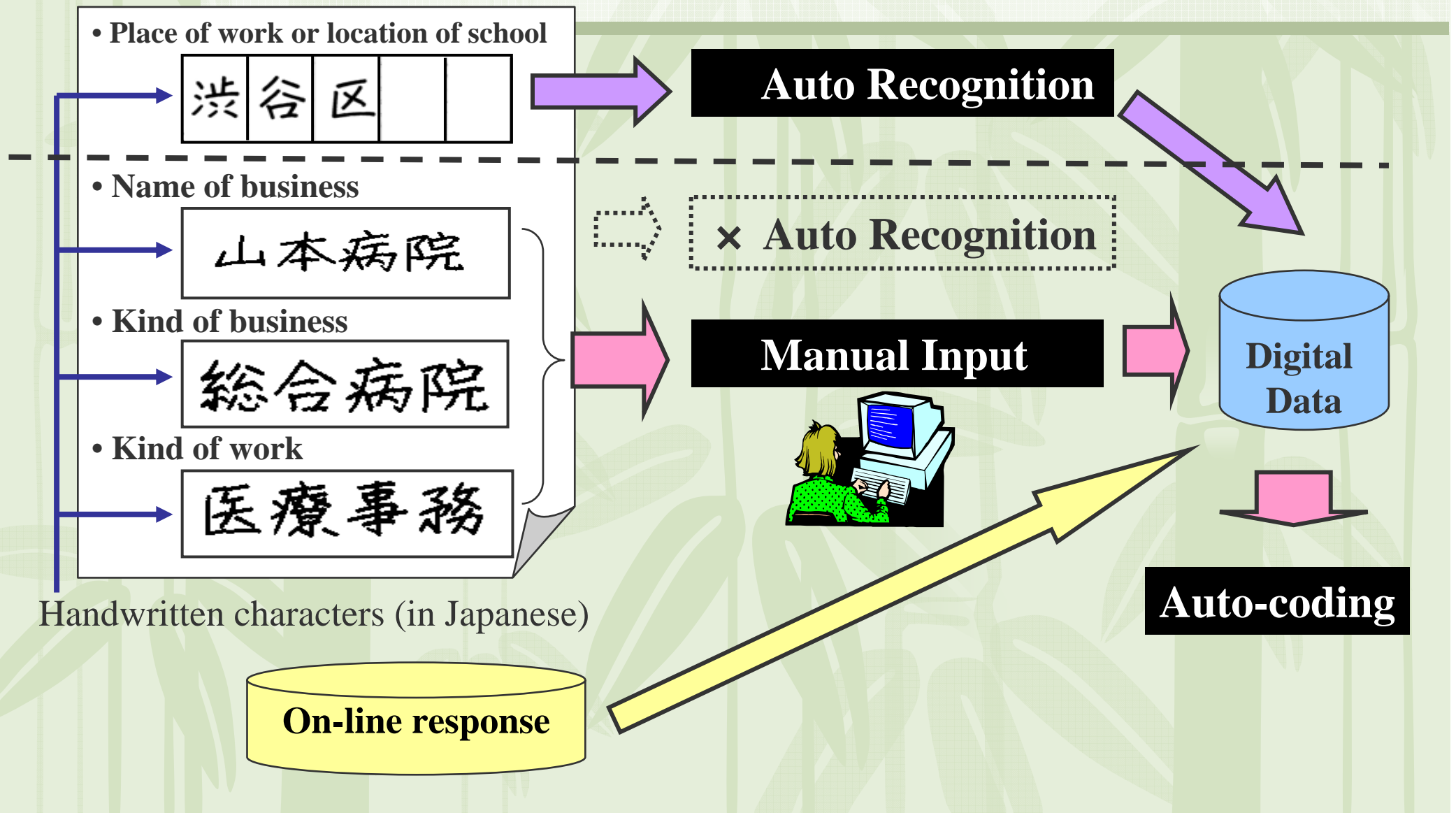
3-2-1. Automatic computer-aided coding systems



3-2-2. Automatic computer-aided coding systems

- Converting the manual data into digital data -

(Questionnaires)



■ Questionnaire - the second pilot survey in 2008 -

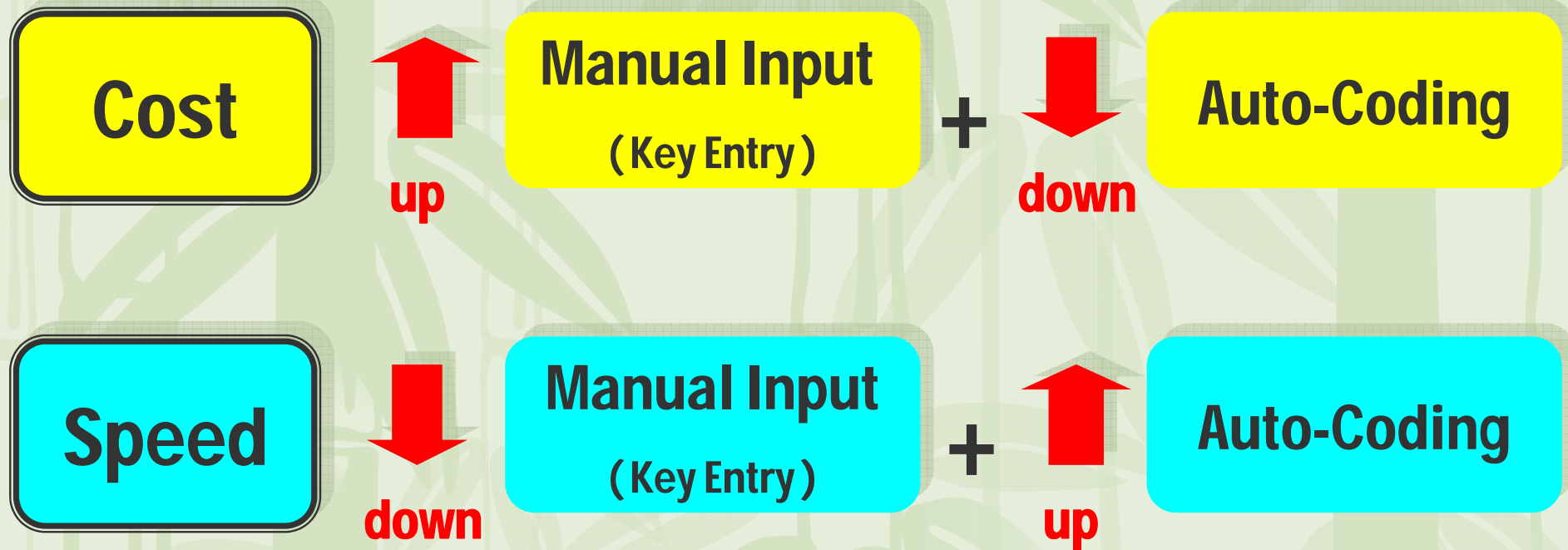
• Place of work or location of school

就業 者 ・ 通 学 者	10 従業地又は通学地	自宅 (住み込み を含む)	同じ区・ 市町村	他の区・ 市町村	自宅 (住み込み を含む)	同じ区・ 市町村	他の区・ 市町村	自宅 (住み込み を含む)	同じ区・ 市町村	他の区・ 市町村	汚 さ な い で く だ さ い		
	・仕事も通学もしている人は 仕事をしている場所について記入してください 同じ区・市町村 又は他の区・市町村の場合は その都道府県・市区町村名(東京都区部と政令指定都市の場合は区名まで)も書いてください	↓	↓	↓	↓	↓	↓	↓	↓	↓		↓	
	12欄へ	(所在地を左づめで記入)			12欄へ	(所在地を左づめで記入)			12欄へ	(所在地を左づめで記入)			

• Name of business , Kind of business , Kind of work

者 に つ い て	13 勤め先・業主などの 名称及び事業の内容	「調査票の記入のしかた」の12～15ページの書き方の例を参考にして くわしく書いてください				こ の 協 力 あ り が と う ご さ い ま し た
	・仕事をしている事業所(本社・本店 支社・支店 営業所 工場 商店など)の名称(官公庁の場合は課名まで)を書いてください ・労働者派遣事業所の派遣社員は 派遣先の状況について書いてください	勤め先・ 業主など の名称				
	事業の 内 容					
	14 本人の仕事の内容					
	・本人が実際にしている主な仕事の内容をくわしく書いてください					

3-2-3. Automatic computer-aided coding systems

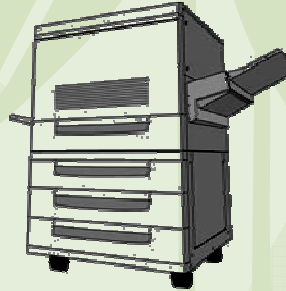


On-line response will contribute to the Auto-coding and improve the efficiency

3-3. Involving the private sector

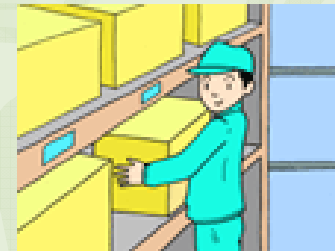
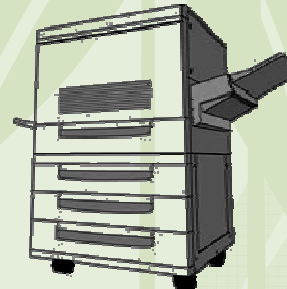
The 2005 Population Census

- Data Capture (OCR)



The 2010 Population Census

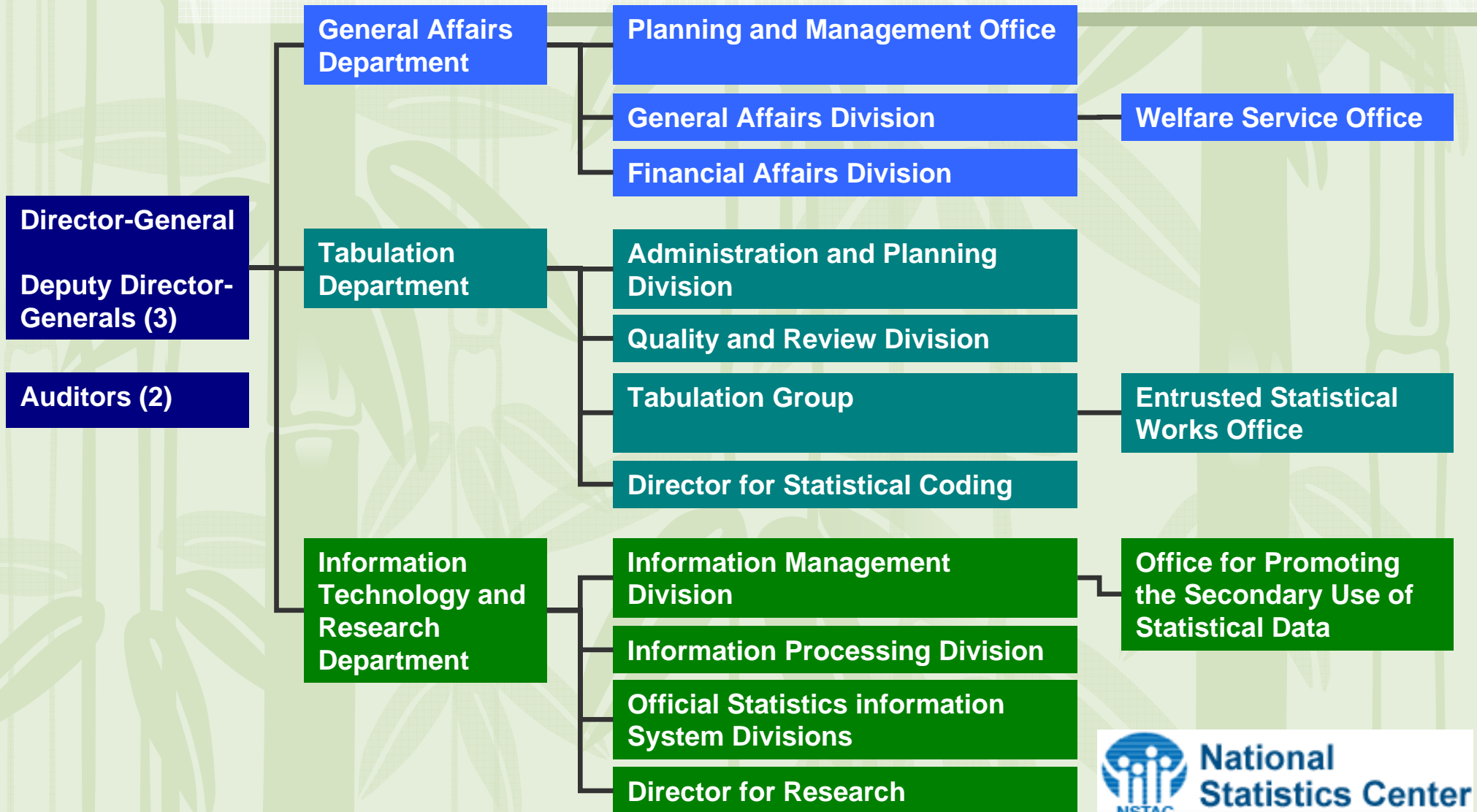
- Receipt and arrangement
- Data Capture (OCR)
- Key Entry



◆ Annex

Organization

Date of Establishment April 1, 2003
Employees approx. 890 (as of 03/31/2008)



Timeline

1871 Main Office of the Meiji government establishes the Statistics Division.

1885 Meiji Cabinet establishes the Statistics Bureau.

1920 First nationwide population census (October 1).

1949 Bureau is transferred to the Prime Minister's Office, becoming the data processing department, the Statistics Bureau of the Prime Minister's Office.

1984 Statistics Center established as part of the new Management and Coordination Agency.

2001 With the restructuring of central government, the Statistics Center become part of the Ministry of Internal Affairs and Communications.

2003 The National Statistics Center begins operations as an incorporated administrative agency.

Lists of Statistics by NSTAC

- | | |
|--|---|
|  Population Census |  Survey of Research and Development |
|  Economic Census (from 2009) |  Survey of Household Economy |
|  Labour Force Survey |  National Survey of Family Income and Expenditure |
|  Consumer Price Index |  Retail Price Survey |
|  Family Income and Expenditure Survey |  National Survey of Prices |
|  Housing and Land Survey |  Population Estimates |
|  Employment Status Survey |  Grid-Square Statistics |
|  Survey on Time Use and Leisure Activities |  Various Statistics entrusted from National Governments |
|  Establishment and Enterprise Census | |
|  Unincorporated Enterprise Survey | |

Reported by Minister in Cabinet every month



Thank You !



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Statistics Center**