Prospects of the Income Distribution for the Elderly in Japan
– Effect of Proposals for Pension Reform –

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Outline of presentation

- Introduction

- Overview of INAHSIM (Integrated Analytical Model for Household Simulation)

- Simulation results for the elderly in 2030

  - Distribution of pension amount

  - Number of elderly people by family type

  - Distribution of equivalent income

- Evaluation of pension reform plans

- Conclusion and future task

<Introduction>

Advent of a super-aged society

☐ The advent of a super-aged society is forecast for Japan due to the rapid progress of a declining fertility rate and an aging population.

- Total fertility rate:　1.26 → 1.24

- Life expectancy:　male 78.53 → 83.67;　female 85.49 → 90.34

Year	2005	2030
Population	127,770	115,220
Elderly people (65+)	25,760 (20.2%)	36,670 (31.8%)
living alone	3,870 (3.0%)	7,170 (6.2%)
in institutions	1,380 (1.1%)	3,710 (3.2%)

Source: National Institute of Population and Social Security Research

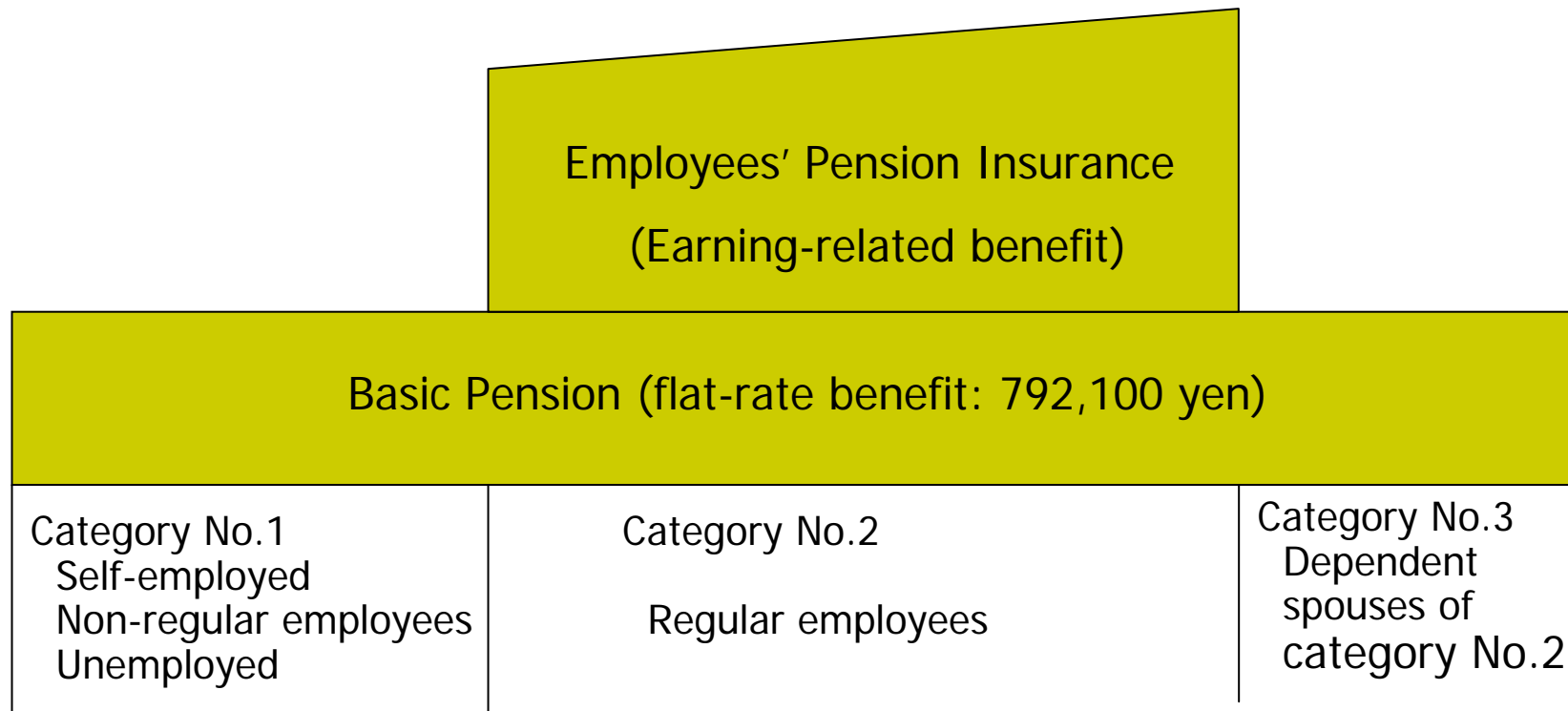<Introduction>

National debate on pension reform

- ☐ Backgrounds of the national debate on pension reform
    - ■ Super-aged society / elderly with low pensions and low incomes
    - ■ Mistrust in public pension scheme caused by mismanaged pension records
- ☐ The report of the Pension Committee of the Social Security Council (2008) "Viewpoints of the investigation of problems remaining after the revision in 2004" shows 7 viewpoints and the first of these raises the issue of the "revision of pension benefits for the elderly with low pensions and low incomes."
- ☐ Various pension reform plans are proposed.
    - ■ Changes in the financing method of the basic pension from a social insurance system to a total taxation system
    - ■ To provide a basic pension financed by taxes from the age of 65

<Introduction>

Public pension system in Japan

Employees' Pension Insurance

(Earning-related benefit)

Basic Pension (flat-rate benefit: 792,100 yen)

Category No.1 Self-employed Non-regular employees Unemployed	Category No.2 Regular employees	Category No.3 Dependent spouses of category No.2

(Note) One of the biggest problem of the National Pension is that there are a growing number of eligible and required persons who have not paid premium in full.
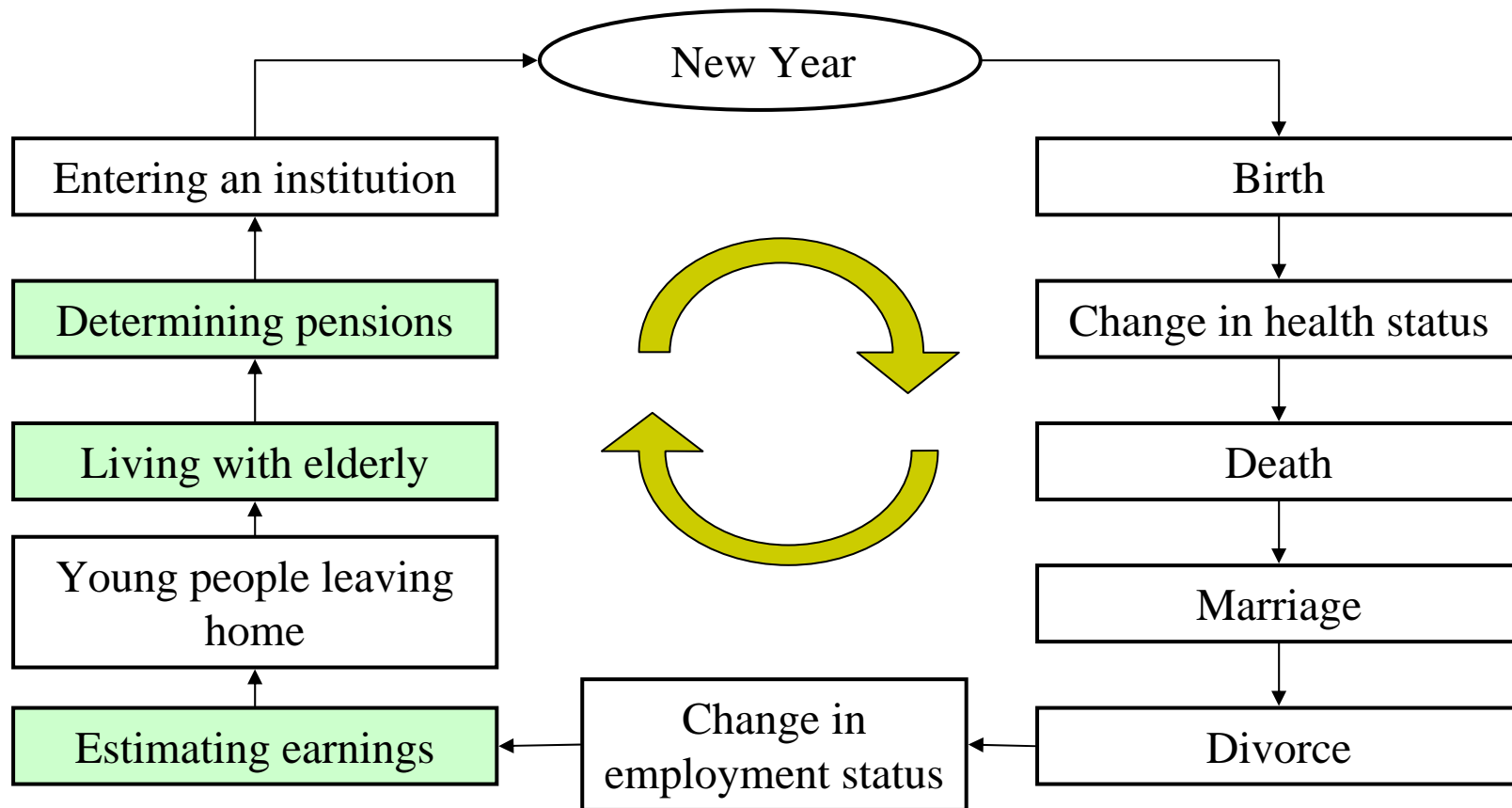
<Introduction>

Objectives of this study

- What is the current status of elderly people with low pensions and low incomes and will the number of these elderly people increase in the future?

- Unfortunately
  - The government does not show the results on future estimates such as the distribution of pension amounts.
  - Microsimulation models are not common in Japan.

- The objectives of this study
  - Prepare projections for the income distribution of households with elderly people using a microsimulation model for Japan.
  - Evaluate the effect of the proposals on the living standards of the elderly.
  - Propose a new alternative to pension reform

<Overview of INAHSIM>

Simulation cycle of INAHSIM

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                    ┌──────────────────────┐
                    │       New Year        │
                    └──────────────────────┘
   ┌──────────────────────┐          ┌──────────────────────┐
   │ Entering an institution │        │        Birth          │
   └──────────────────────┘          └──────────────────────┘

   ┌──────────────────────┐          ┌──────────────────────┐
   │  Determining pensions  │        │ Change in health status │
   └──────────────────────┘          └──────────────────────┘

   ┌──────────────────────┐          ┌──────────────────────┐
   │   Living with elderly  │        │        Death          │
   └──────────────────────┘          └──────────────────────┘

   ┌──────────────────────┐          ┌──────────────────────┐
   │  Young people leaving  │        │       Marriage         │
   │         home           │        └──────────────────────┘
   └──────────────────────┘

   ┌──────────────────────┐  ┌──────────────┐  ┌──────────────────────┐
   │  Estimating earnings   │◄─│  Change in   │◄─│       Divorce        │
   └──────────────────────┘  │ employment   │  └──────────────────────┘
                             │   status     │
                             └──────────────┘
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<Overview of INAHSIM>

Key life events

- Living with elderly parents
  - When elderly people, who do not live with their children, become very old age and need care, many children move in with their elderly parents to take care of them.
  - An important life event to secure the life of the elderly in Japan

- Estimating earnings
  - Earnings are assumed to conform to a log-normal distribution by sex, age group, and employment status.
  - z-score of the earnings-distribution for each person is given in advance, and person's earnings are estimated on the basis of one's z-score assuming the earnings-distribution by sex, age group, and employment status each year.

- Determining pensions
  - The pension amount is estimated on the basis of pensioner's z-score and subscription category assuming the distribution of newly awarded pension amounts.
  - Early and deferred pensions are not considered.

<Overview of INAHSIM>

Initial population

- Initial population
  - A scale of 1/1000th of the population of Japan (127,687 persons)
  - The 2004 Comprehensive Survey of Living Conditions of People on Health and Welfare conducted by ministry of health labor and welfare
  - The collection rate of CSLC varies according to sex, age, and household structure. These differences are adjusted by weighing resampling rates when the initial population was prepared.

- Socioeconomic characteristics
  - year of birth, sex, marital status, health status, employment status, earnings, pension amount, lifetime income, etc.
  - all kinship relationships, year of marriage, year the marriage dissolved, cause of separation, number of children, household structure, etc.

- Take an average of 100 simulation runs to evaluate the simulation results.

<Simulation results>

Prospects for the elderly in 2030

- Targeting the year 2030 in which the baby-boomer generation is attaining the late-stage of old age and the number of late-stage elderly is reaching near a peak.
    1. Distribution of pension amount (public support)
    2. The number of elderly by family type (private support)
    3. Distribution of equivalent income (standard of living)
- Key points
    1. The number of elderly with low pension amounts of less than 0.5 million yen will decline due to the maturity of the public pension and increase in the rate of subscription to the Employees' pension Insurance.
    2. Changes in the family type of the elderly are significant. Those living alone or in an institution will be doubled.
    3. The number of late-stage elderly with low equivalent income of less than 1 million yen will increase greatly.
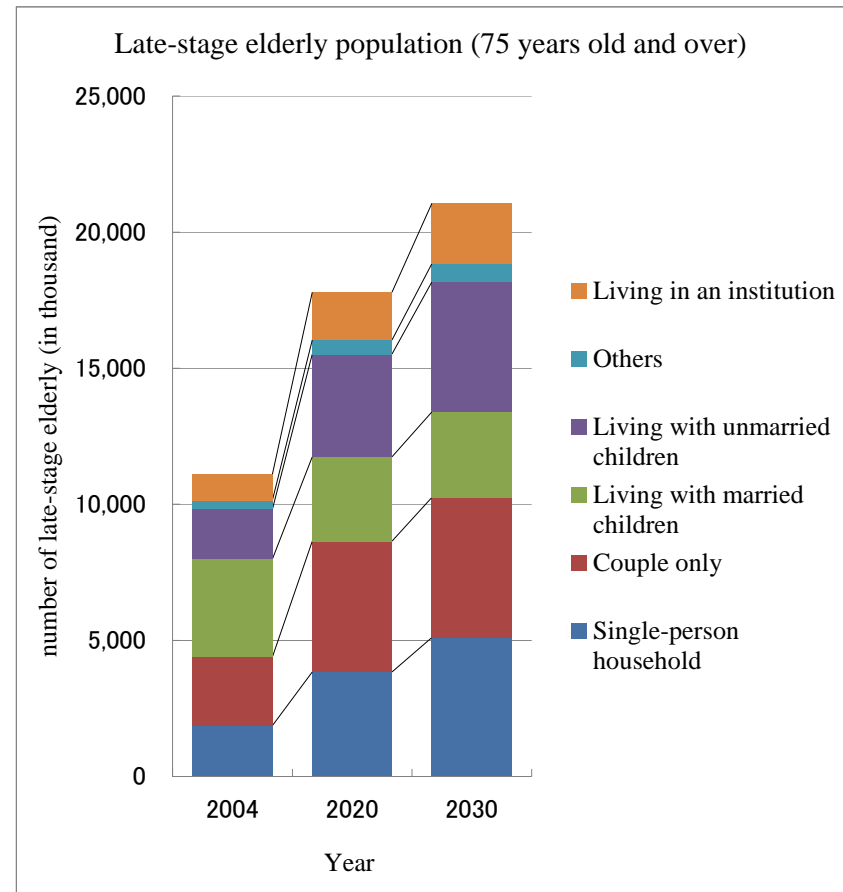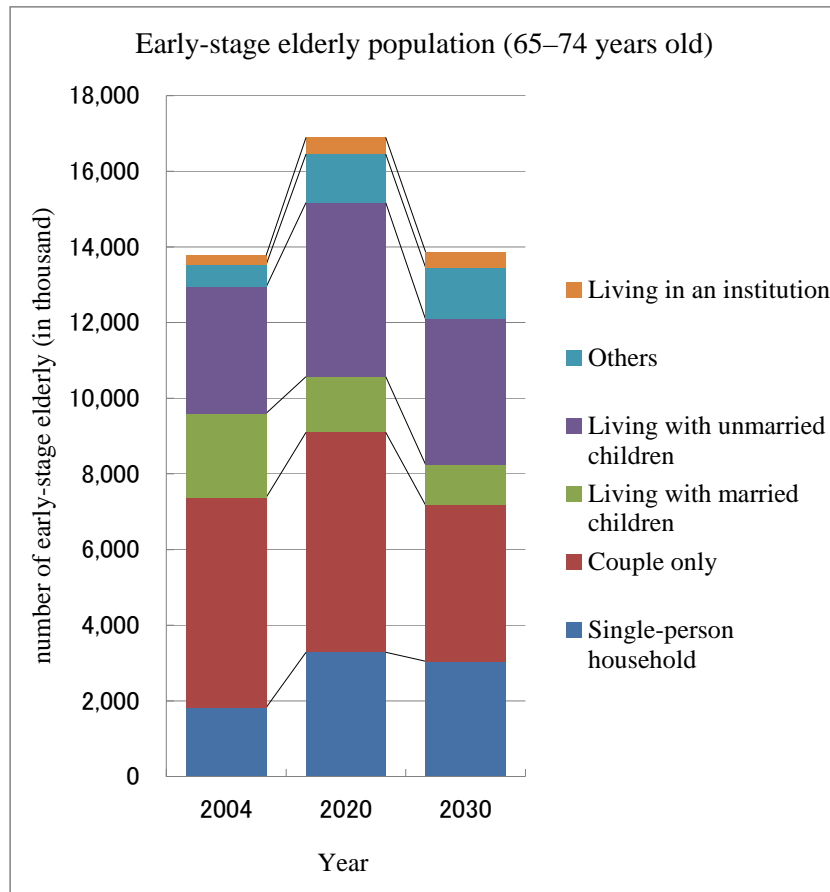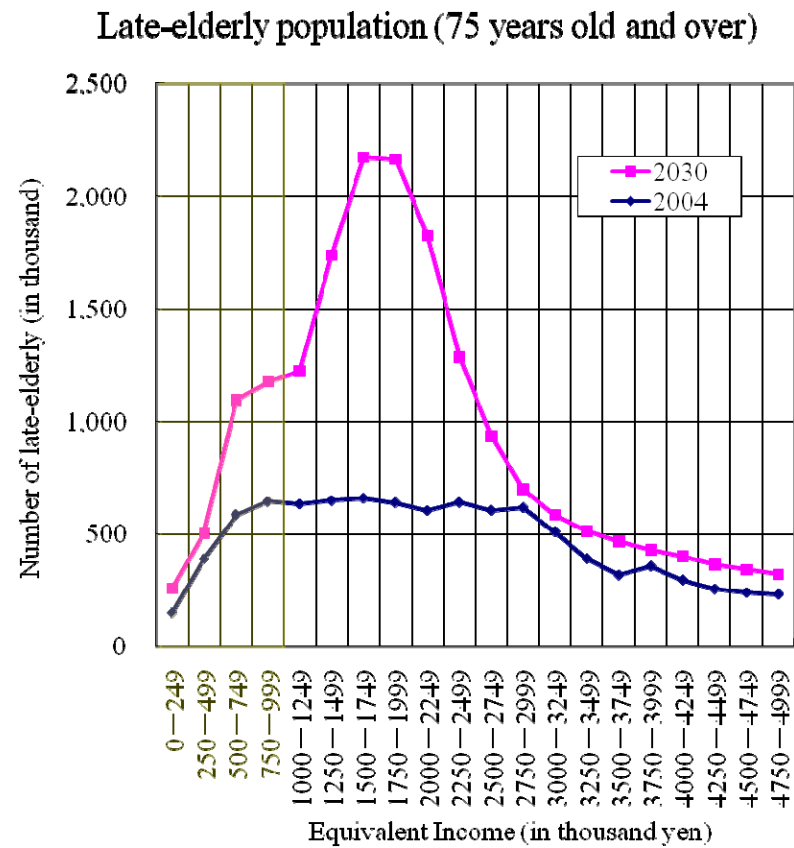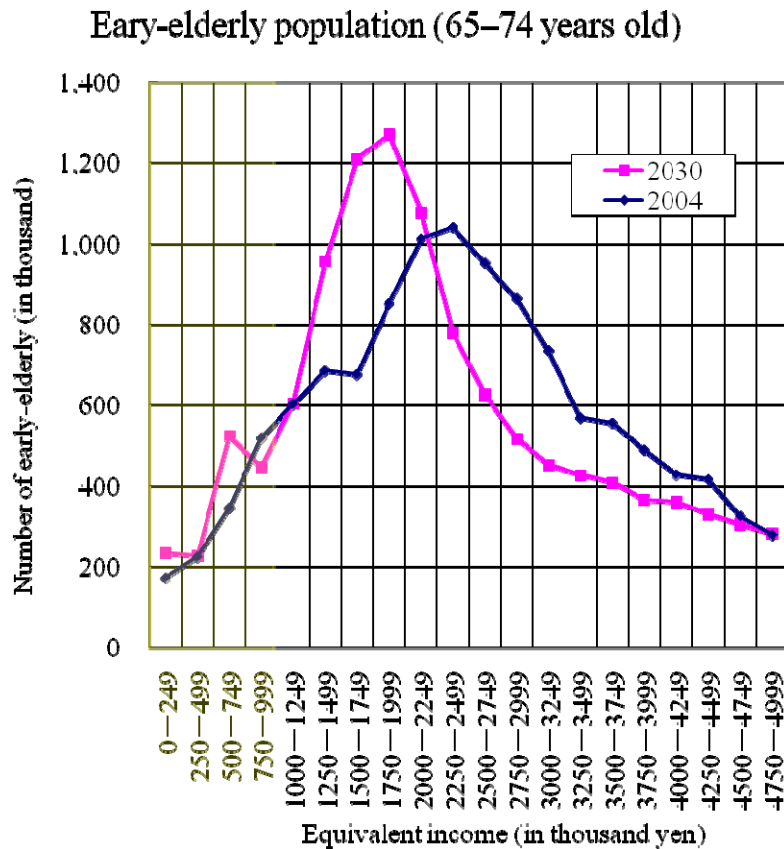
Distribution of pension amounts

Eary-elderly population (65–74 years old)

Late-elderly population (75 years old and over)

<Simulation results>
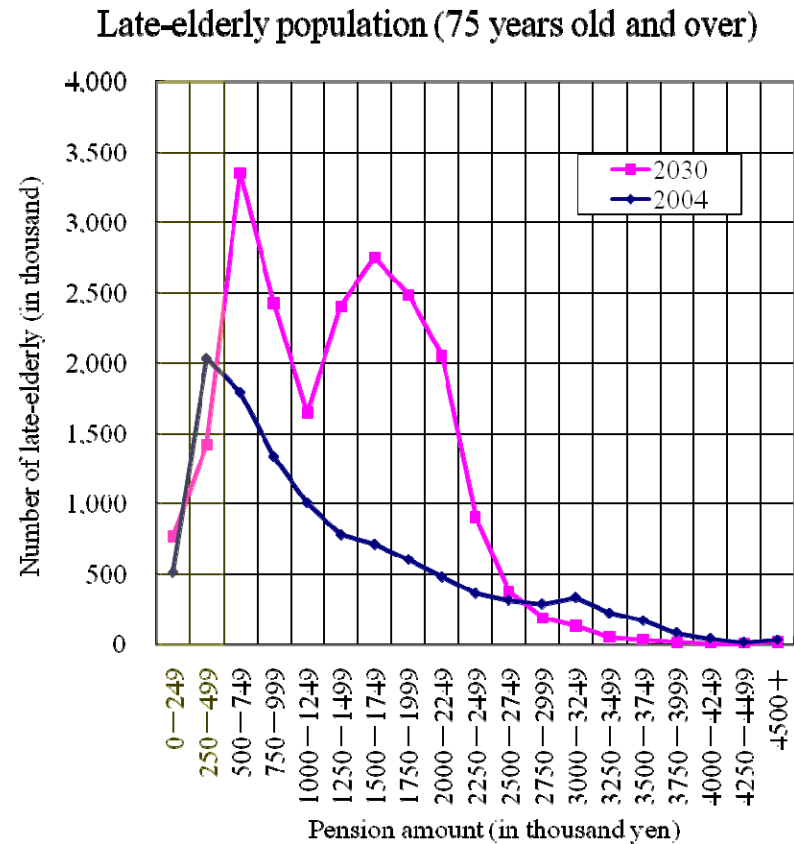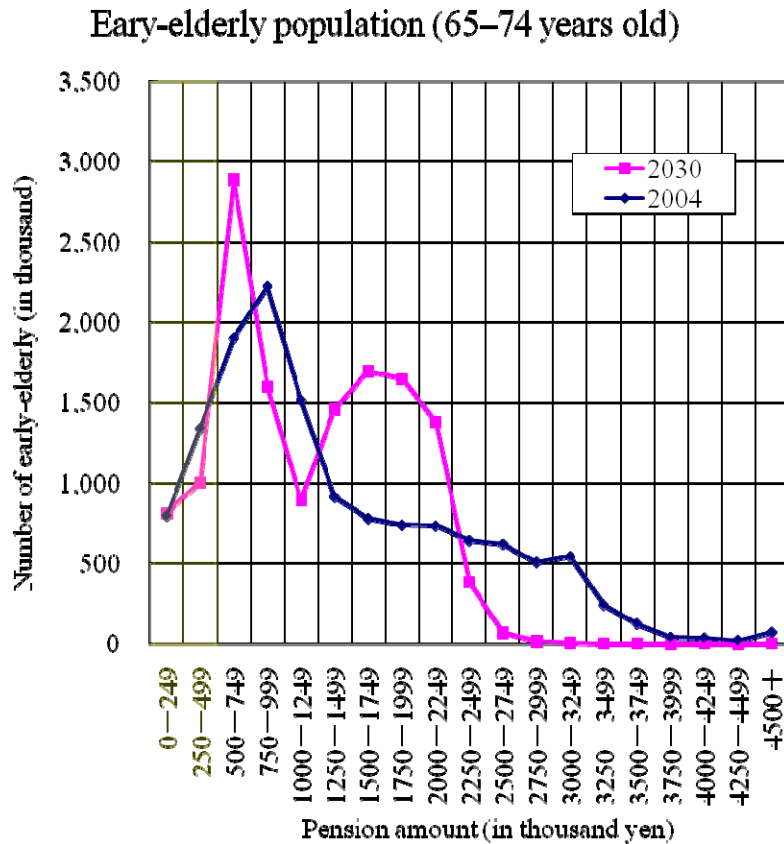
Numbers of elderly people by family type

Early-stage elderly population (65–74 years old)

number of early-stage elderly (in thousand)

- Living in an institution
- Others
- Living with unmarried children
- Living with married children
- Couple only
- Single-person household

Year

Late-stage elderly population (75 years old and over)

number of late-stage elderly (in thousand)

- Living in an institution
- Others
- Living with unmarried children
- Living with married children
- Couple only
- Single-person household

Year

<Simulation results>

Distribution of equivalent income

(Note) The median equivalent income in 2030 will be 3,012 thousand yen.
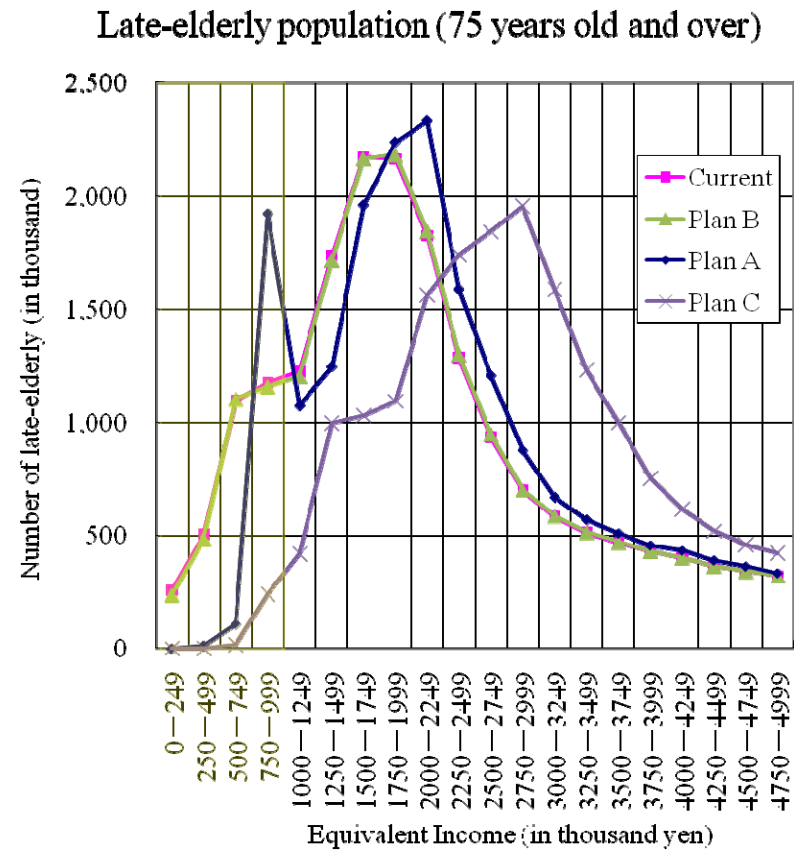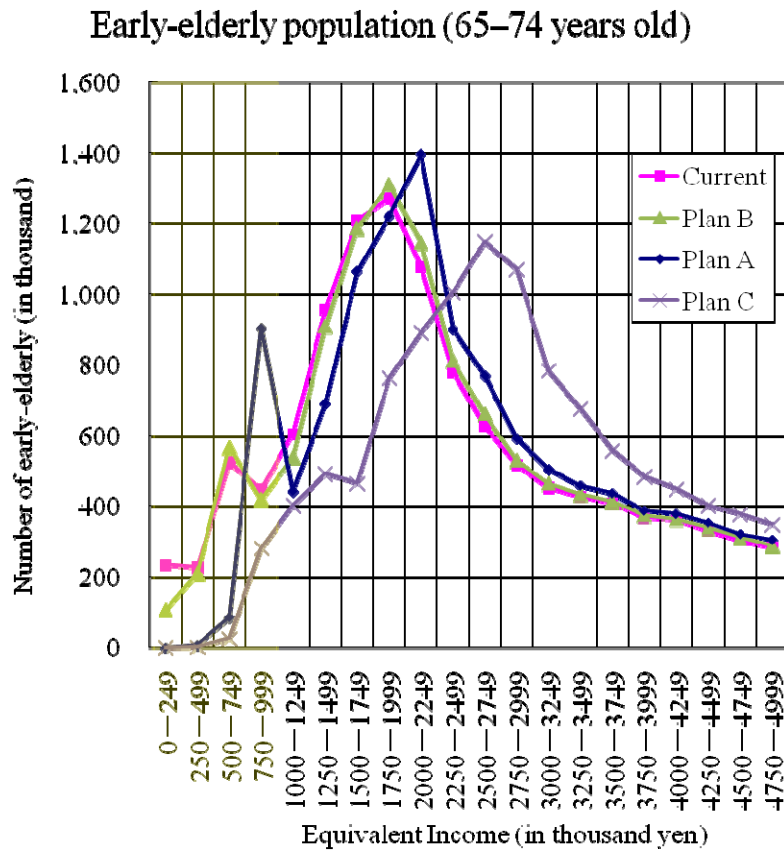
<Evaluation of reform plans>

Proposed reform plans

- The pension reform plans in this presentation are methods to provide a basic pension financed by taxes from the age of 65 with all plans having the same final form. However, there are differences in the treatment of the past premium payments:

  - Plan A has a uniform pension payment that ignores the past premium payments.

  - Plan B reduces pension amounts in accordance with the period of not paying premiums.

  - Plan C adds on to the pension amounts in accordance with the period of paying premiums.

- Thus, for current 20-year-old and older subscribers, all of these interim measures, except for Plan A, will remain until all die.

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<Evaluation of reform plans>

Simulation results for the reform plans

Early-elderly population (65–74 years old)

Late-elderly population (75 years old and over)

<Evaluation of reform plans>

Evaluation of the reform plans

	Good points	Bad points
Plan A (uniform)	The low-income group is reduced by a large margin.	<u>Unfair</u> between those people who diligently paid their premiums and those who did not pay them.
Plan B (reduce)	Fair between those people who diligently paid their premiums and those who did not pay them.	<u>Very little effect</u> for people with low incomes by the year 2030.
Plan C (add)	The low-income group is reduced by a large margin. Fair between those people who diligently paid their premiums and those who did not pay them.	<u>The additional cost will be significant</u> because it provides benefits additionally even to the high-income group.

<Evaluation of reform plans>

Proposal for a pension reform

- The revision of the pension benefits for the elderly with low pensions and low incomes is not an easy task from the viewpoint of fairness and its additional cost.

- The previously-proposed reform plans targeted all elderly people 65 years and older, but here we want to propose <u>a revision of the pension benefits for the elderly with low pensions and low incomes implemented only for the late-stage elderly</u>.

    - Apply the taxation system of plan A to the basic pension of the late-stage elderly

    - Maintain the framework of the current system for the basic pension of the early-stage elderly

- By narrowing down the targeted people, the problems of the fairness and the additional cost will be resolved.

<Conclusion and future task>

Conclusion and future task

- ☐ The Japanese society cannot avoid rapid changes such as aging and a shift toward a depopulating society.

  - ■ the need for social security is increasing

  - ■ efficiently distribute into social security benefits the revenue pie that is feared to be shrinking

- ☐ Improvement of INAHSIM

  - ■ property income, corporate pension, and other social security benefits

  - ■ social security contribution, and tax burden

  - ■ property, and housing

  - ■ wage increase, and inflation rate

  - ■ international migration

- ☐ Widespread utilization of microsimulation models for Japan

Thank you!