# Economics for Inclusion!: An introduction to Research on Economy And Disability (READ)

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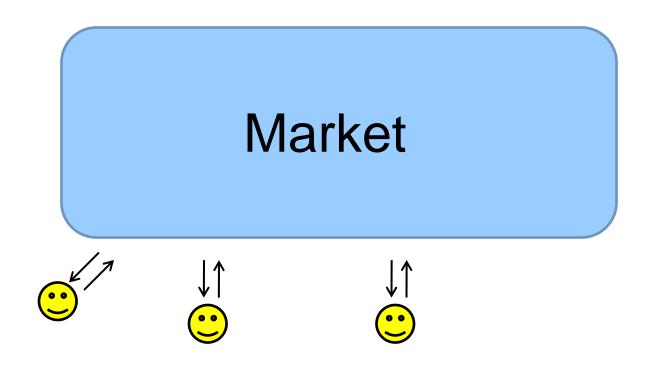
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#### What is economics about?

- Economics is a discipline that analyzes society, market in particular, and wellbeing of people therein.
- Not much talking about human rights, which are usually given in economics.
   But can analyze and compare different societies with different levels of human rights.

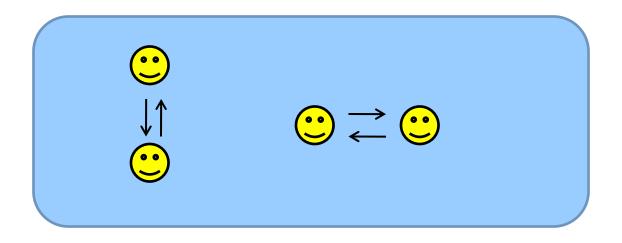
# Traditional economics vs modern economics

Traditional economics (Market theory)

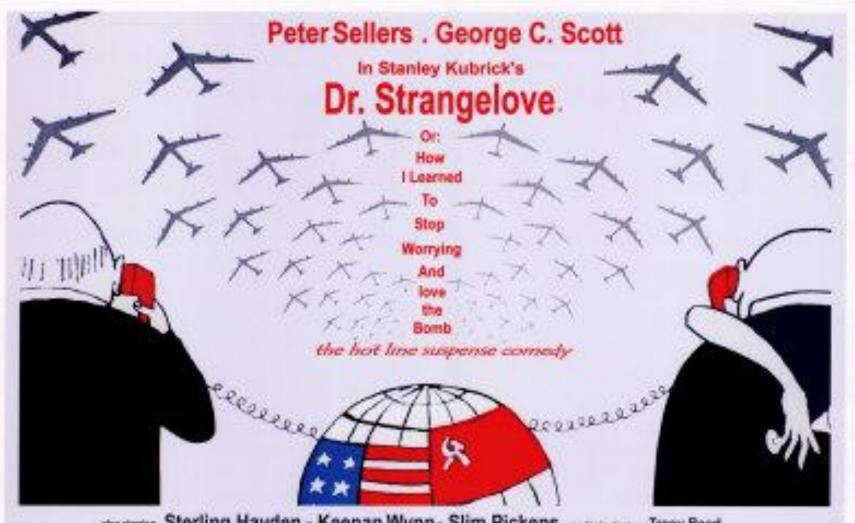


# Traditional economics vs modern economics

Modern economics (Game theory)



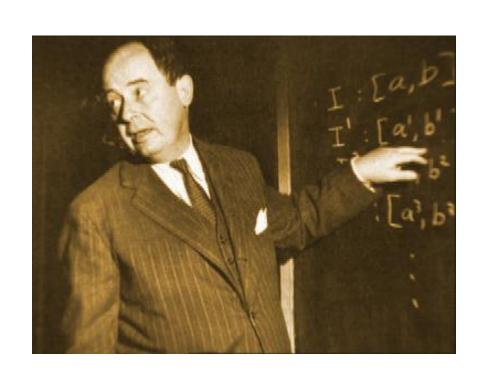
Market/Society



Sterling Hayden - Keenan Wynn - Slim Pickens and references Tracy Reed

Sterred Viv. Stanley Kubrick, Peter George & Terry Southern Standard Street Stanley Kubrick A Columbia Pictures Release

#### John von Neumann





#### 4 ACADEMY AWARDS BEST PICTURE

Own It on DVD

#### **BEST PICTURE**

**BRIAN GRAZER - RON HOWARD** 

#### BEST DIRECTOR RON HOWARD

**BEST SUPPORTING ACTRESS** 

JENNIFER CONNELLY

BEST SCREENPLAY
AKIVA GOLDSMAN

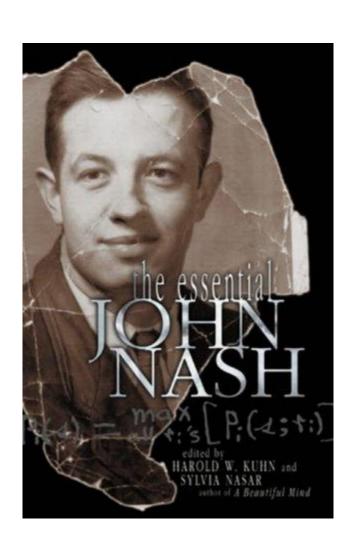
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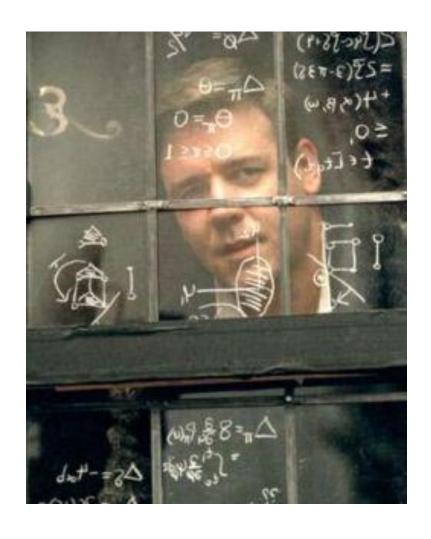
(FLASH 5 REQUIRED)

RUSSELL CROWE ARON HOWARD FILM A BEAUTIFUL MIND

ED HARRIS

#### John F. Nash



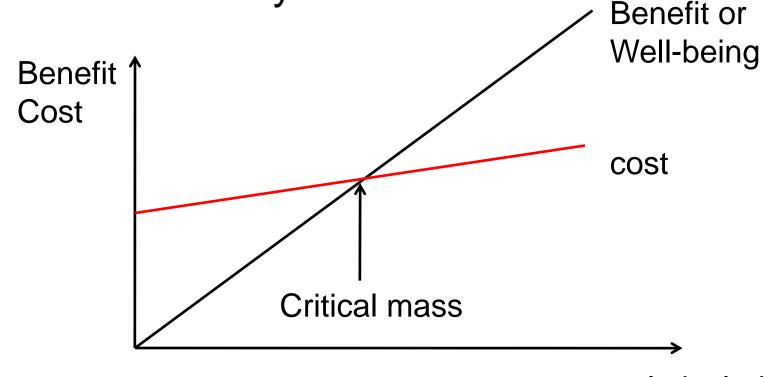


# What game theory can show is that society is designed for the "normal"

- "normal" is a concept relative to the society.—self-reference
- E.g., height of steps is determined to accommodate "normal" people.
- Indeed, if many people were like athletes in gymnasium, then we wouldn't have stairs but only a pole to go to "upstairs".
- In such a society, people like me would be called people with disability (PwD)

# Logic behind the necessity of Social Inclusion 1

 We need a critical mass in public arena to move the society.



# Logic behind the necessity of social inclusion 2

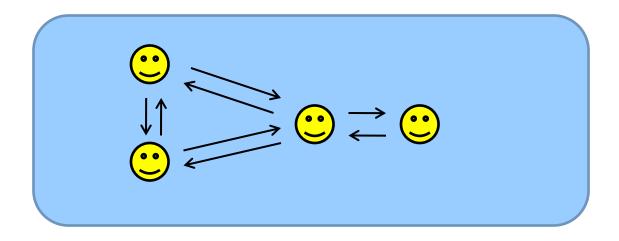
Poor economic conditions and segregation policy of PwD may induce prejudices, which in turn prevents the society from including some people.

Inductive game theory (Kaneko and Matsui, 1999) showed:

"If people who do not know the real structure of society, then segregation leads to prejudices."

#### Logic behind the necessity of social inclusion 2

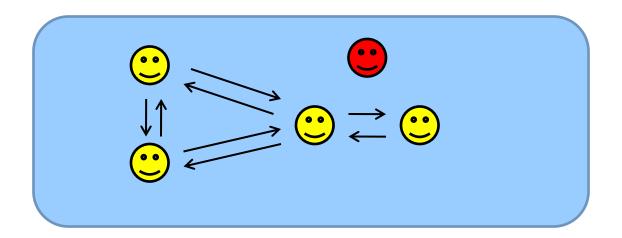
They are doing OK...



Society

#### Logic behind the necessity of social inclusion 2

One day, a different type of person comes.



Without preparation and experiences, on the don't know what to do. may justify their not including the what what to do. may justify their not including the whole the whole must be useless (or harmful). Unfortunately, this happens even if the whole is useful (or harmless). => Prejudices emerge.

**READ** 

#### Registration system for "PwD" in Japan

Limit the number of recipients of benefits.

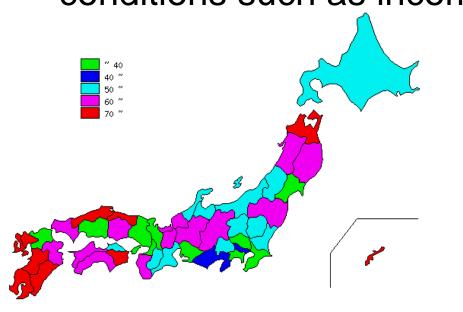
Registration system as device to divide people between "normal" and "PwD".

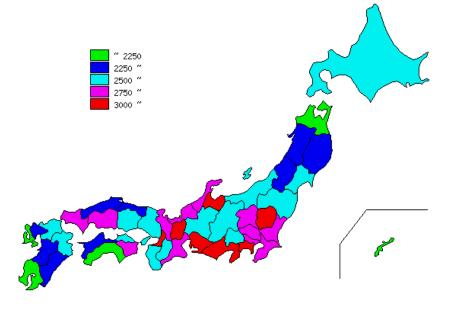
"PwD" are separated as a group.

Prejudices are induced against some.

### Registered number of people with intellectual disability

Prejudices are real and related to economic conditions such as income





Registered number of PwID (per 10K)

Per capita Prefectural Income (1,000yen)

#### Hypotheses

(1)Actual # of PwID and economic conditions
 Economic conditions↑ ⇒ IQ↑
 Actual # PwID↓=>Registered # PwID↓

(2)Registered # of PwID and economic conditions

Economic conditions

=> Cost from prejudices > Benefits from registration Registered # PwID↓

# Registered number of people with intellectual disability (per ten thousand)

	Severe		Mild	
	coefficient	t-value	coefficient	t-value
Per capita prefectural income (in thousand yen)	-0.0033	-0.80	-0.013	-2.73**
Fraction 65 and over (%)	1.05	2.43*	1.36	2.65*
Avg no. people per household	0.80	0.18	15.17	2.92**
Net social increase rate (%)	-6.57	-1.06	17.20	2.34*
Rate of continuation on to colleges (%)	-0.11	-0.63	-0.42	-2.07*
Constant	13.09	0.78	18.73	0.94

<sup>\*\* 1%</sup> significance

 $R^2=0.54$ 

 $R^2=0.57$ 

<sup>\*5%</sup> significance

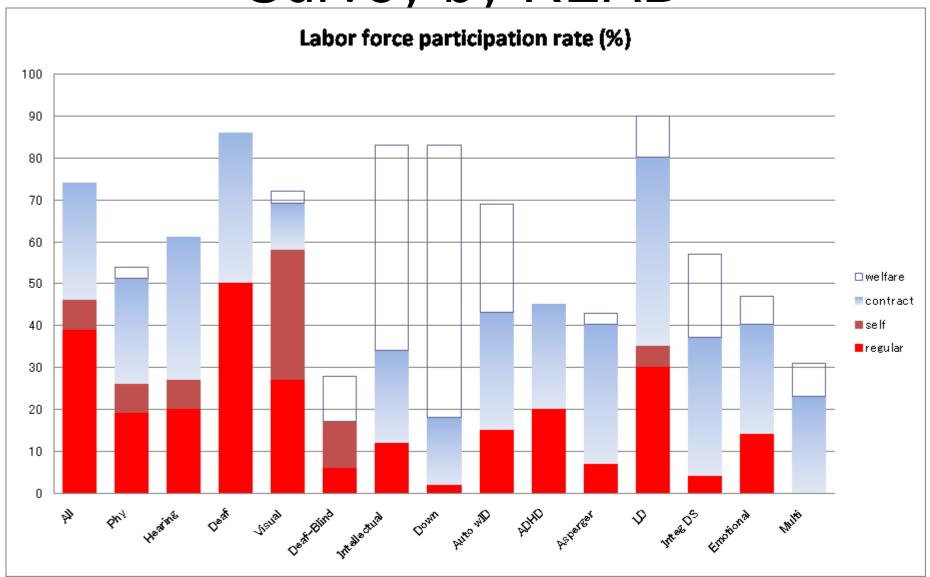
#### Survey by READ

- We need statistical analysis to relate economic variables and disability variables.
- No comprehensive data
- We conducted a survey

17 associations

1331/2275 (=59%)

#### Survey by READ



#### Conclusion

- Modern economics (game theory) are concerned with people and their interaction.
- Society is designed for the "normal".
- System designed for "non-normal" induces prejudices, which is real and can be related to economic factors such as income.
- Economics can and should contribute to the understanding of such a situation and the empowerment of PwD by theoretical and statistical analysis.



## Team: Research on Economy And Disability (READ)

#### Thank you!

# Japan a country of uniformity

Minority

Ainu: 24,000 (0.02% of the total pop)

Immigrants

Migrant stock (UN, 2006)

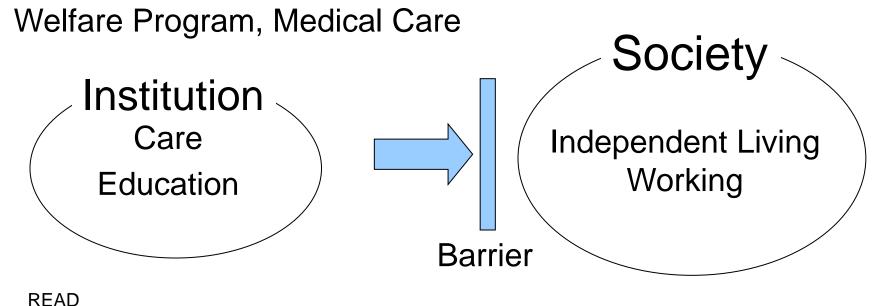
1.6% or 28th of 30 OECD countries

(cf. UK: 9.1% or 14<sup>th</sup>)

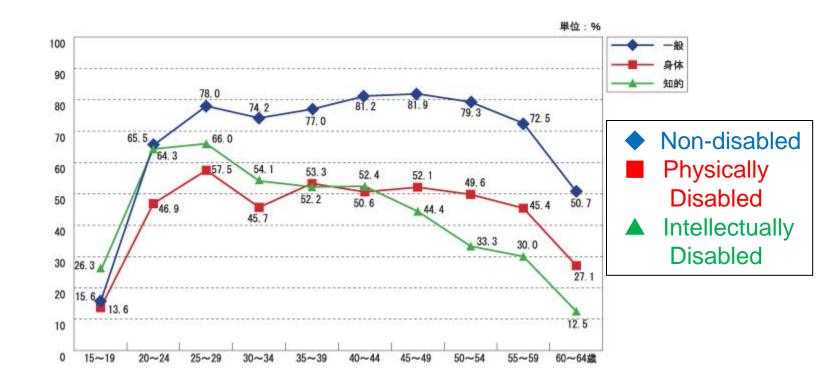
#### System designed for "non-normal"

There are always people who are not "normal"

People with disability
Children in Nursing Institutions

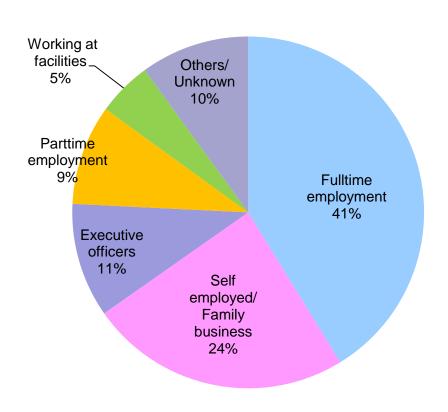


#### Working Rate by Age

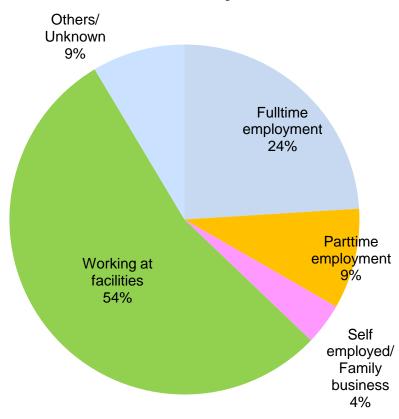


#### Types of Work

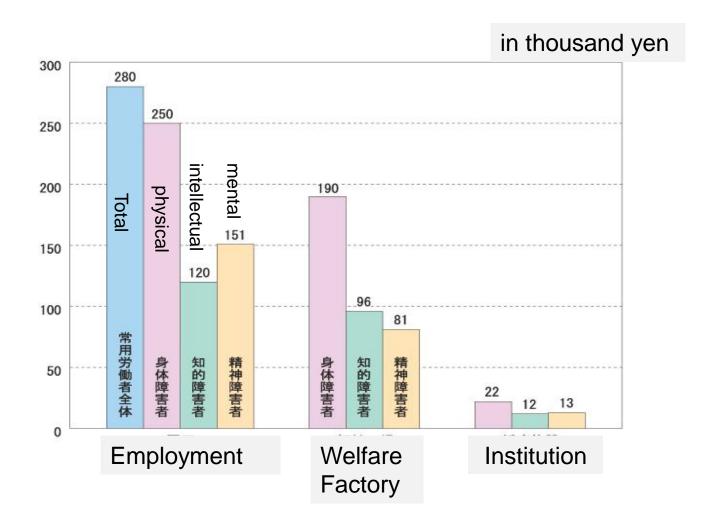
#### **People with Physical Disability**



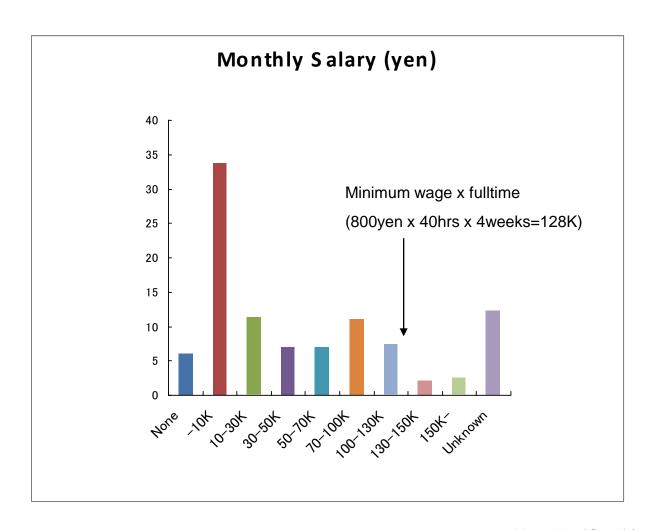
#### People with Intellectual Disability



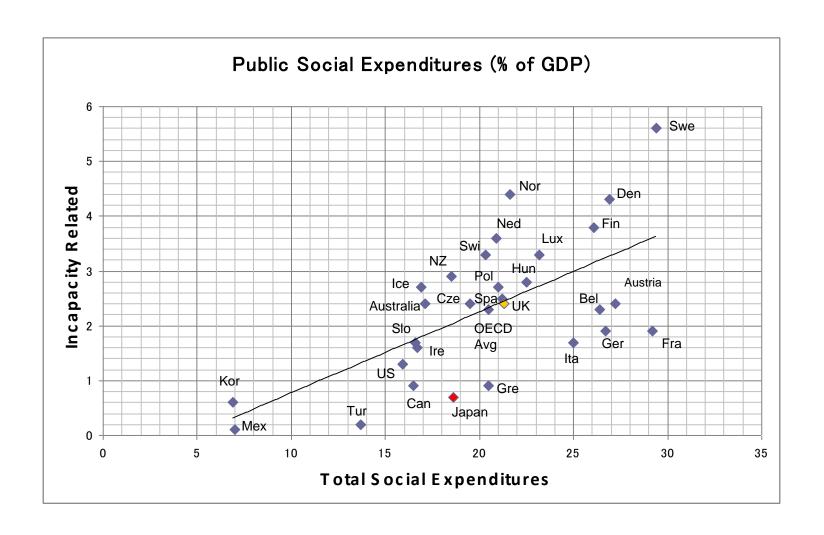
#### Monthly Income



#### Monthly Salary of P w Intellectual Disability



#### Social Security (OECD, 2007)



# What can and should economics do to reduce stigma and empower PwD?

- E.g., Some people say Basic Income helps to reduce stigma since it's universal.
- But, so far only ideas without theory nor simulation, and therefore cannot tell whether it's feasible and effective or not.
- Economics can offer a theory and do statistical analysis as well as simulations.