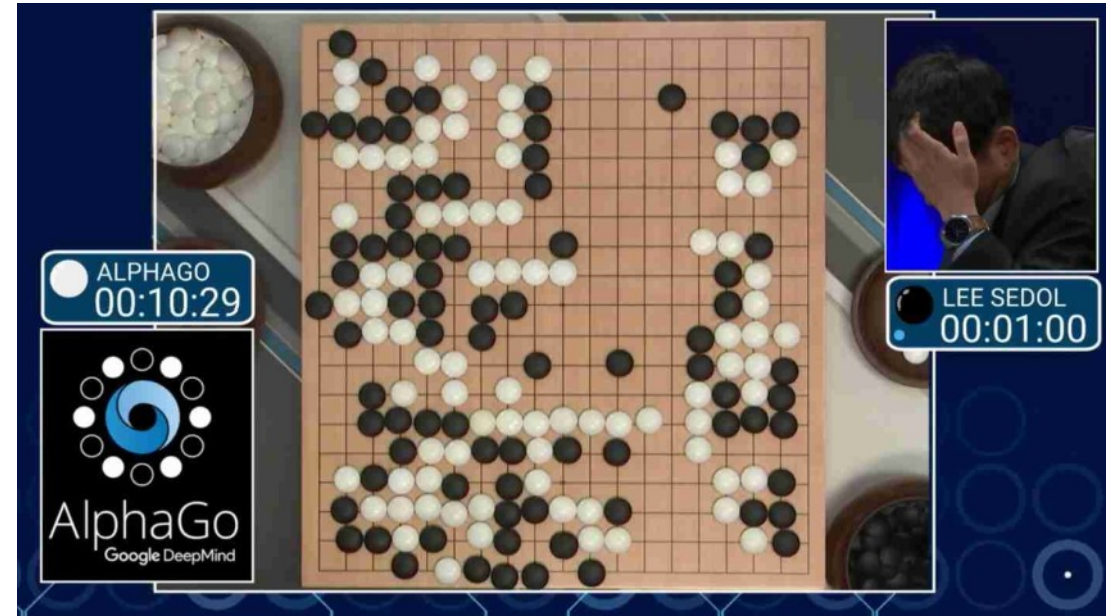


Gyeonggi youth dividend and local currency



Nam Hoon Kang

(The 4th industrial revolution and basic income SSK at Hanshin University)

Gyeonggi province

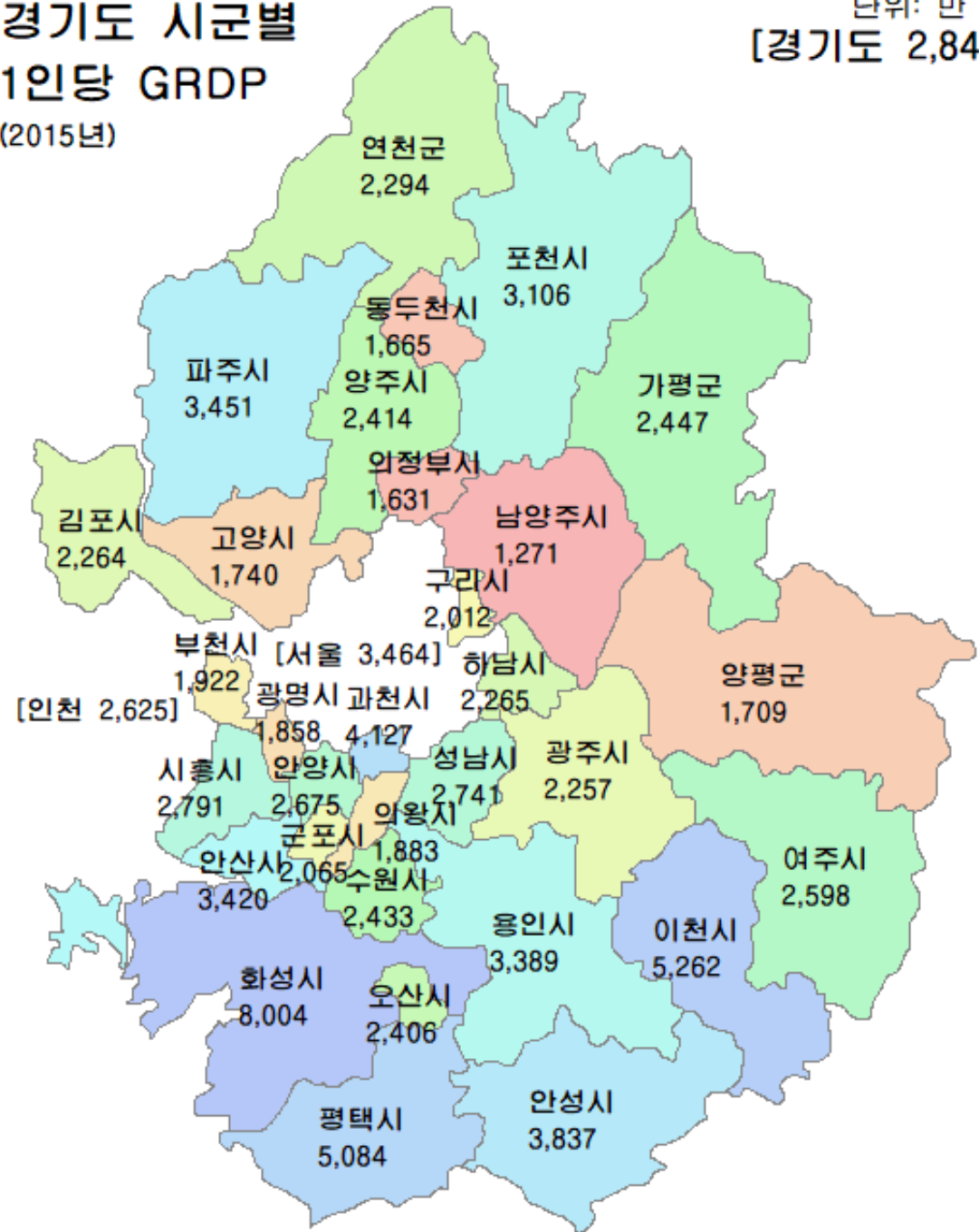
■ Gyeonggi province

- Population 13 million. The largest province in Korea

City	2017년 12월
Total	12,873,895명
Suweon	1,194,041명
Goyang	1,039,684명
Yongin	991,126명
Seongnam	974,580명
Bucheon	851,380명
Ansan	689,859명
Namyangju	662,154명
Hwaseong	640,890명

경기도 시군별
1인당 GRDP
(2015년)

단위: 만 원.
[경기도 2,840]



Governor Jae-myung Lee

- Born in 1964 in Andong, moved to Seongnam in 1976.
- 1976~1981 Manual worker, became a sixth degree disabled person in an industrial accident.
- 1982 entered Jungang University, department of law.
- 1986 became a lawyer.
- 1986~2010 Lawyer in Seongnam city, Acted as a human rights lawyer.
- 2010 He was elected mayor of Seongnam city. 2014 reelected.
- 2017 He ran for presidential candidate in the Democratic Party but failed.
- 2018 He was elected governor of Gyeonggi Province.
- 2018 Youth dividend ordinance was passed on October 23rd at the Gyeonggi Provincial Assembly.
- He is considering farmer's dividend in Gyeonggi Province.
- He is campaigning for the introduction of land value tax combined with basic income.

Basic income campaign

When he ran for presidential candidate, he promised 6 categorical dividends, and 1 universal land dividend, which is basic income based on land value tax.

이재명의 기본소득론

※특수배당 중복 수혜 인정
※토지배당 국토보유세
세수 손증분 15조5000억원
전액 분배

기본소득 종류	지급 대상(소요 예산)	기본소득 종류	지급 대상(소요 예산)
생애주기별 배당 (연 100만원)	0~12세 아동배당(5조8000억원)	특수배당(연 100만원)	장애인(2조5000억원)
	13~18세 청소년배당(3조1000억원)		농민(1조7000억원)
	19~29세 청년배당(7조6000억원)	토지배당(연 30만원)	전 국민(15조5000억원)
	65세 이상 노인배당(7조4000억원)		

예산 총계 **43조6000억원**

기본소득 수령 예시

부부가 초등학생, 중학생 자녀를 부양하는 가정



아동배당 100만원 +
청소년배당 100만원 +
토지배당 30만원 × 4명
= **연 320만원**

대학생과 장애가 있는 노모가 함께 사는 가정



청년배당 100만원 +
노인배당 100만원 +
장애인배당 100만원 +
토지배당 30만원 × 2명
= **연 360만원**

장애아를 포함한 2명의 아동 자녀와 노부모를 부양하는 농민 부부 가정



(농민배당 100만원 × 2명) +
(노인배당 100만원 × 2명) +
(아동배당 100만원 × 2명) +
장애인배당 100만원 +
토지배당 30만원 × 6명
= **연 880만원**

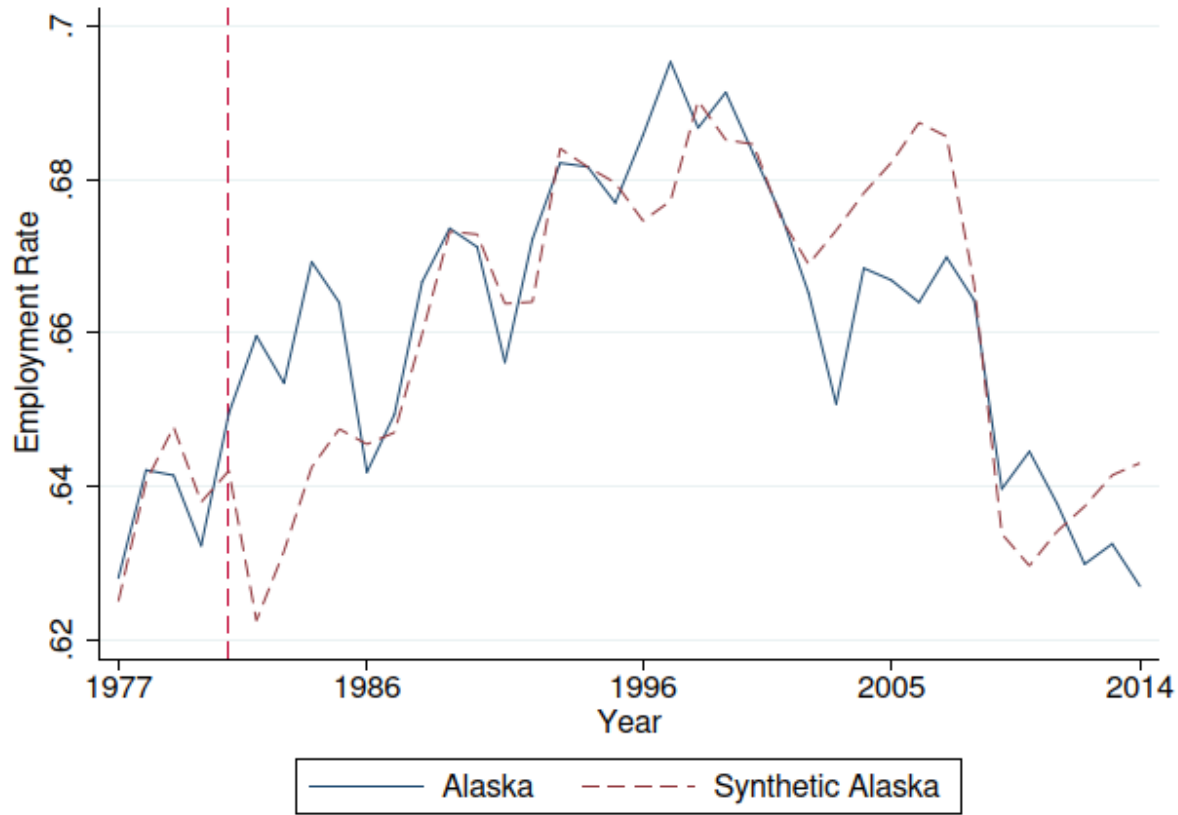


Youth Dividend

- Youth dividend
 - Youth dividend refers to money that is paid to young people (19 to 24 years old) who have lived in Gyeonggi-do for three years or more, for the purpose of improving the welfare of young people and contributing to the creation of a stable living environment, while contributing to the revitalization of the local economy.
 - Everyone is a co-owner of the natural commons, such as land and environment, and social commons, such as culture, knowledge and institutions.
 - They therefore have the right to receive dividends from the profits of the common wealth.
 - For the time being, only 24-year-olds are paid.
- Local currency
 - Youth dividends are paid in local currency.
 - Local currency is issued by the city or county government.
 - People can pay local currency only to small businesses.

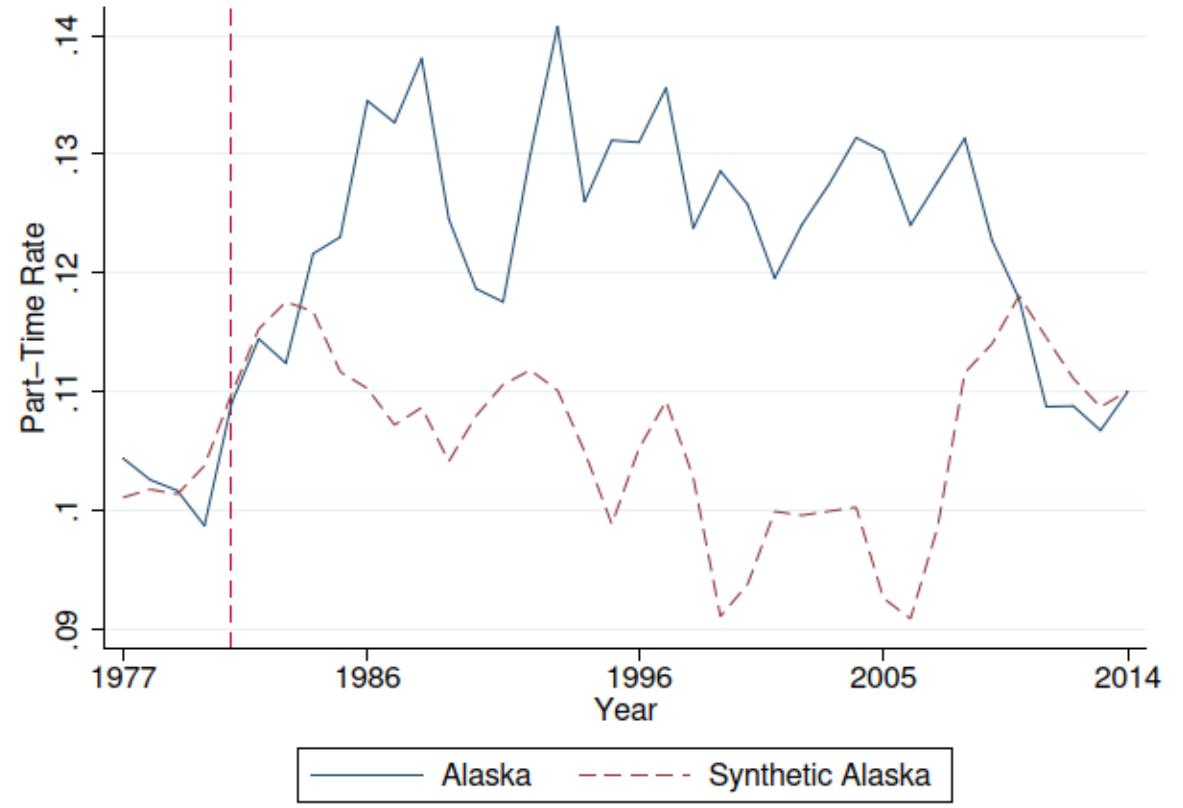
- Recipients: 24-year-olds 175,200 persons
- 250,000 won/quarter, 1million won/year(about 3% of per capita GDP)
- Gyeonggi province will provide 122.7 billion won, while the rest will be provided by city governments.
- The largest basic income pilot except Alaska (700,000 persons).
- This is the scale that makes it possible to identify macroeconomic effects.
 - Cf. Seattle-Denver, the largest NIT experiment in the United States in the 1970s, covered 4,801 households.
- Paid only to 24-year-olds, but the whole family will feel like a recipient.
- Young people under the age of 24 will also expect dividends.
- Since it is paid in local currency, small businesses will be in favor of it.

Figure 1: Employment Rate, 1977-2014



(a) Employment Rate: Alaska vs. Synthetic Alaska

Figure 2: Part-Time Rate, 1977-2014



(a) Part-Time Rate: Alaska vs. Synthetic Alaska

- A local currency means a certificate of a certain amount or quantity of goods or services, issued by city or county, irrespective of its name or form, including electronic or magnetic record. If a holder of the local currency provides the local currency to the issuer or the person designated by the issuer, the goods or services shall be provided in accordance with the specified contents. (Gyeonggi Province Youth Dividend Ordinance Article 2)
- Local currency is based on the fiat money issued by the central government.

High education fee

Necessity of youth dividend

	재학생 비율			평균 연간 등록금(미국 달러 PPP)							
	공립	정부의 존 사립	독립 사립	공립		정부의존 사립		독립 사립		가중 평균	중위값
	전 학 년	전 학년	전 학년	1학년	2학년 이상	1학년	2학년 이상	1학년	2학년 이 상	전 학년	전 학 년
호주	96	0	4	3,924	6,099	0	0	10,110	9,635	5,723	5,555
한국	23	0	77	5,395	5,395	0	0	9,383	9,383	8,466	9,383
미국	70	0	30	5,402	5,402	0	0	17,163	17,163	8,930	5,402

국가	고등교육비	국가	고등교육비
Australia	16,267.3	Netherlands	17,549.4
Austria	14,894.9	New Zealand	10,582.2
Canada	23,225.8	Norway	18,840.2
Denmark	21,253.8	Sweden	20,818.3
Finland	18,001.6	Switzerland	22,881.7
France	15,374.8	United Kingdom	14,222.9
Germany	16,722.8	United States	26,021.3
Japan	16,446.0	Korea	9,926.5
Ireland	16,095.1	OECD - Average	13,957.7

University fee is very high

Education expenditure is very low

High housing costs

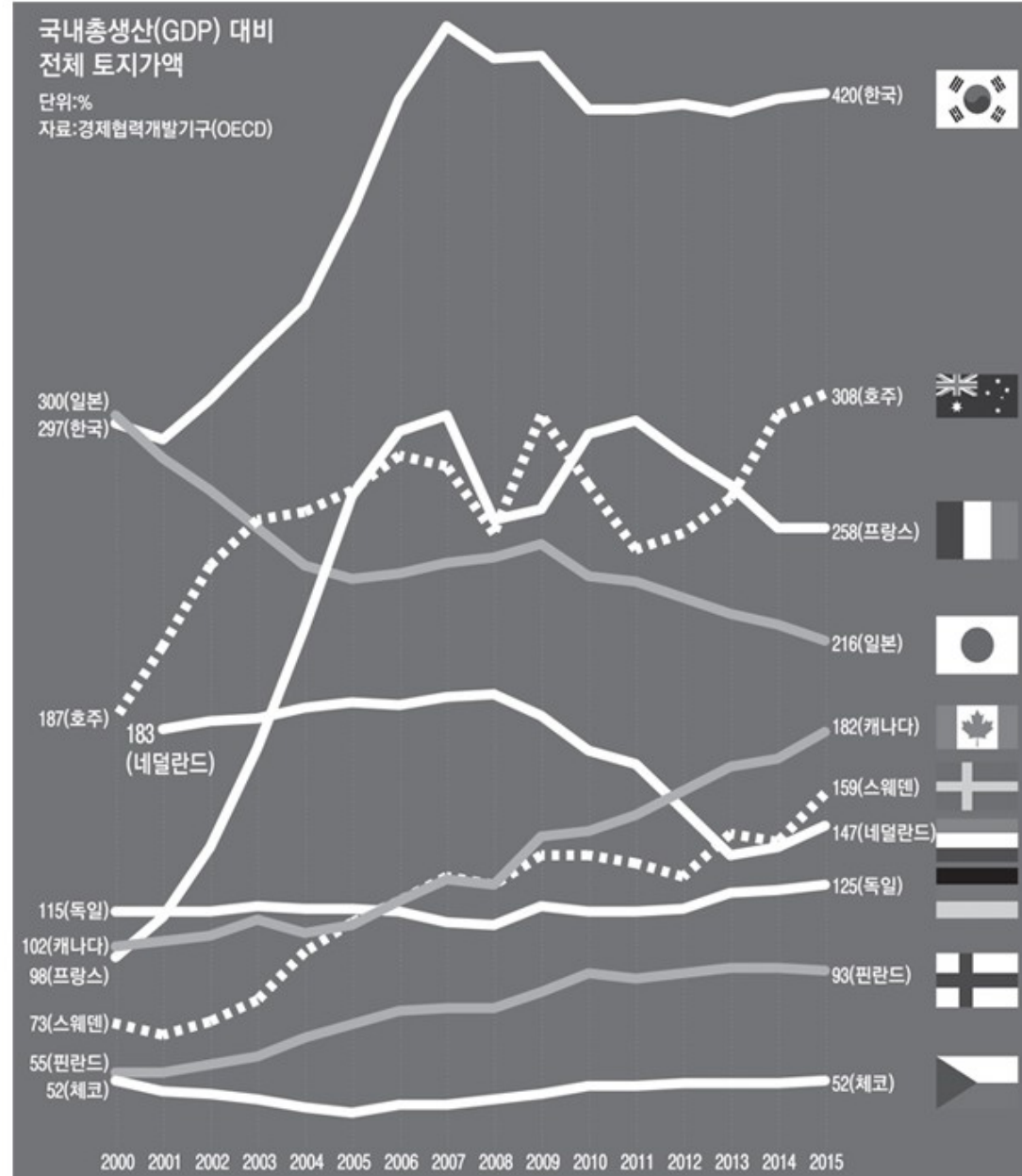
Necessity

[표 8-6] 부동산소득(실현 자본이득+임대소득) 추산 단위 조 원 %

연도	2007	2008	2009	2010	2011	2012	2013	2014	2015
실현 자본이득	275.5	291.9	297.5	299.1	300.3	285.0	263.9	240.3	227.0
임대소득	167.9	178.6	189.0	201.9	214.6	221.9	230.4	242.4	255.1
합계	443.4	470.5	486.5	501.0	514.9	506.9	494.3	482.7	482.1
합계/GDP	42.5	42.6	42.2	39.6	38.6	36.8	34.6	32.5	30.8

- The unearned income from real estate in a year is 400~500 trillion won.
- 30~40% of GDP
- Exploitation of young generation

PIR (the price to income ratio) of land



Unstable labor

Necessity

(2018. 8.) unit: 10 thousand persons

Over 15			4,421
Economically active population			3,041
Employed	Employed		2,691
	Irregular		843
	Regular		1,158
	Non wage workers		690
	Self employed		573
		Employers	158
		Own account workers	415
	Unpaid family workers		117
Actual unemployed	Formal unemployed		113
	Willing to work more		65
	Potential EAP		172

**So-called good jobs
10% of Employed**

대기업	120만
공무원 (직업군인 포함)	160만 (비정규직30만)
공공기관 (공기업 포함)	40만 (비정규직10만)

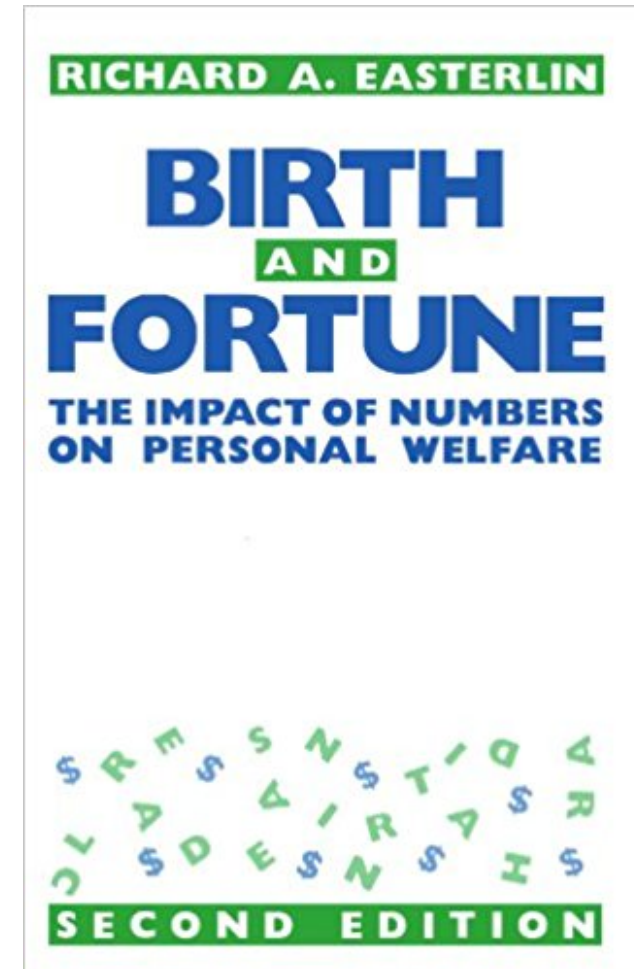
**Actual rate of unemployment
11.8%
Among young persons(15~29)
23.0%**

**Unstable workers
about 60% of EAP**

Easterlin Hypothesis

Necessity

- Relative cohort size
 - Crowding effect... cycle between high and low birth rate
 - Family crowding effect
 - Education crowding effect
 - Labor market crowding effect
- Relative income
 - Earning expectation... Labor market condition around 30 years old
 - Material aspiration ... Economic condition around 12 years old
 - If income is high relative to aspirations and jobs are plentiful, it will be easier to marry young and have more children.

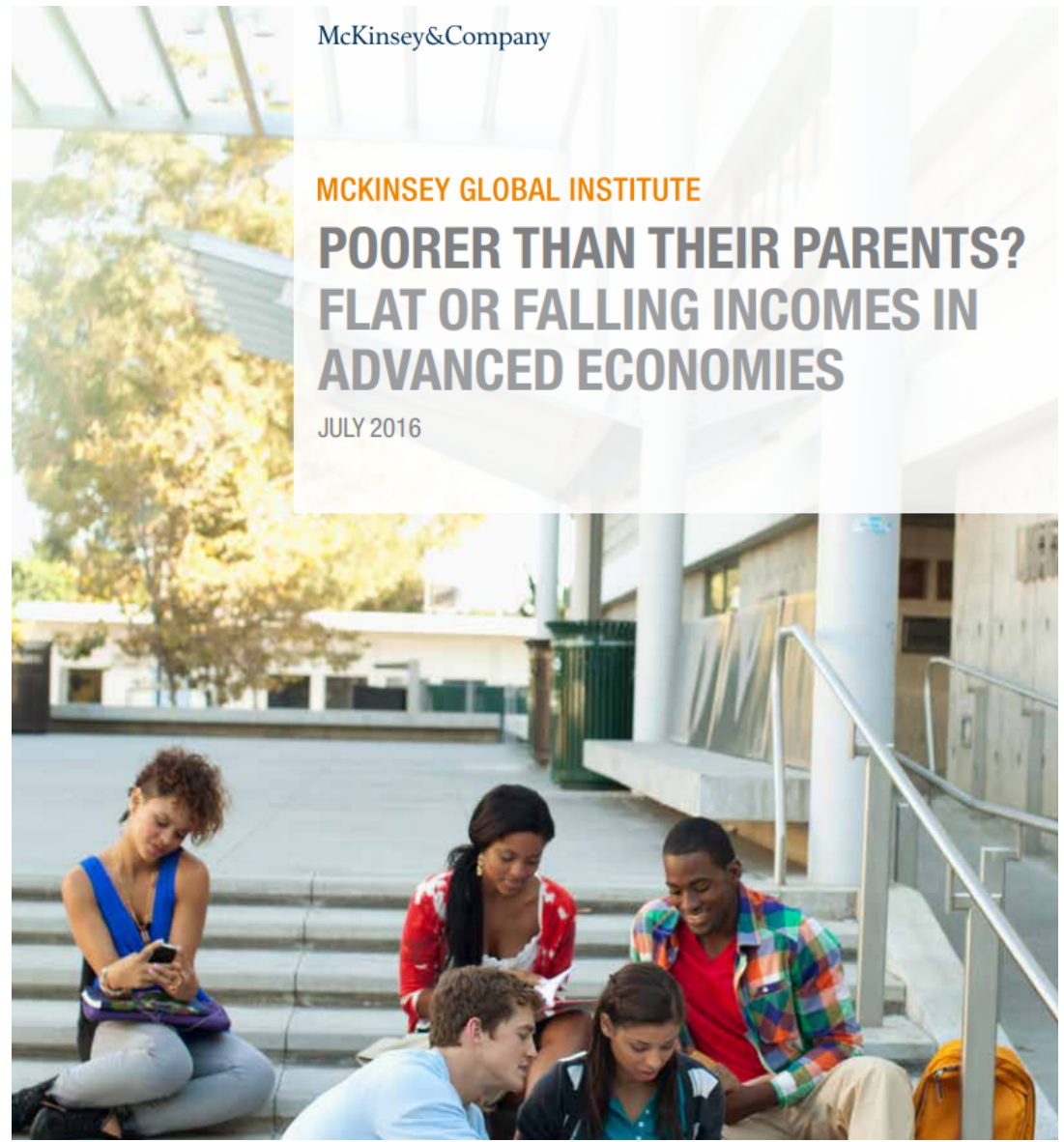
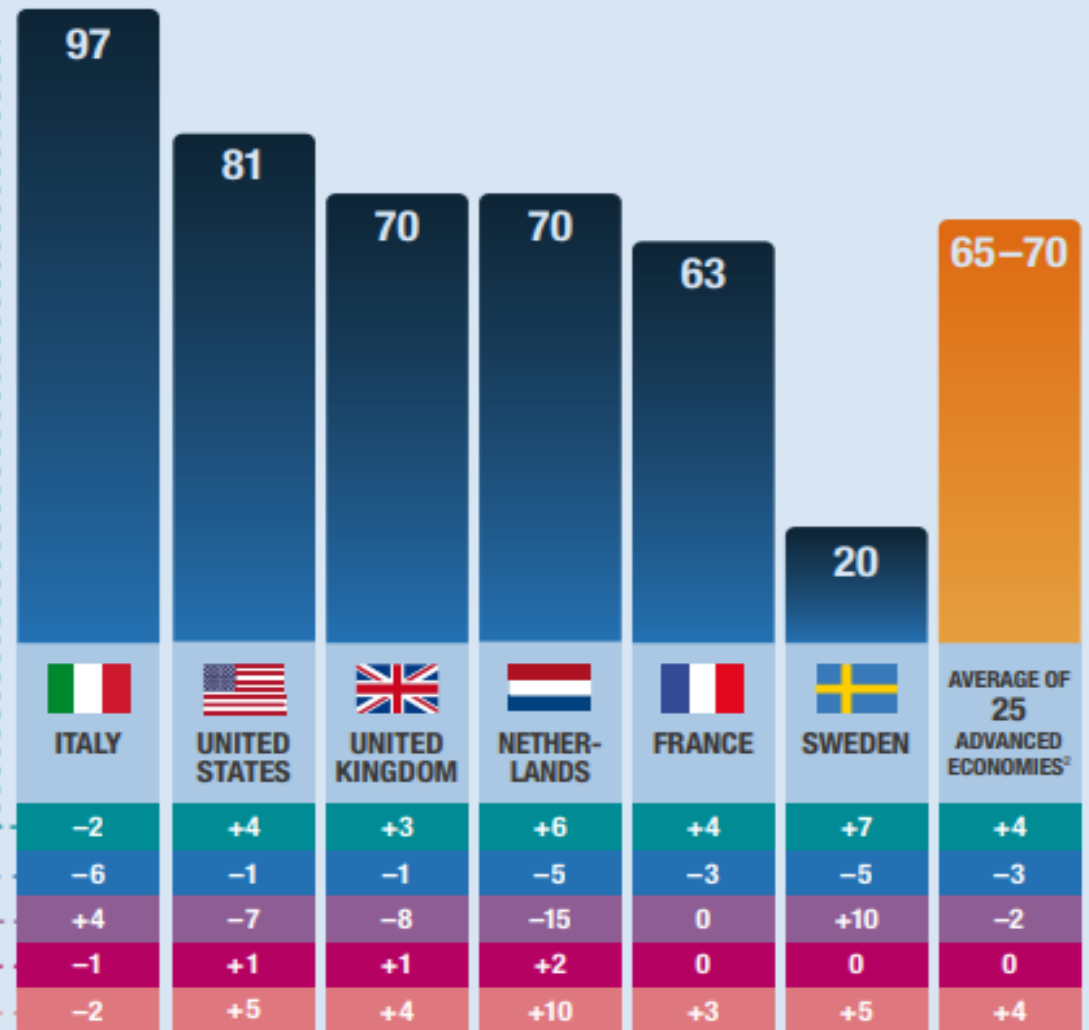


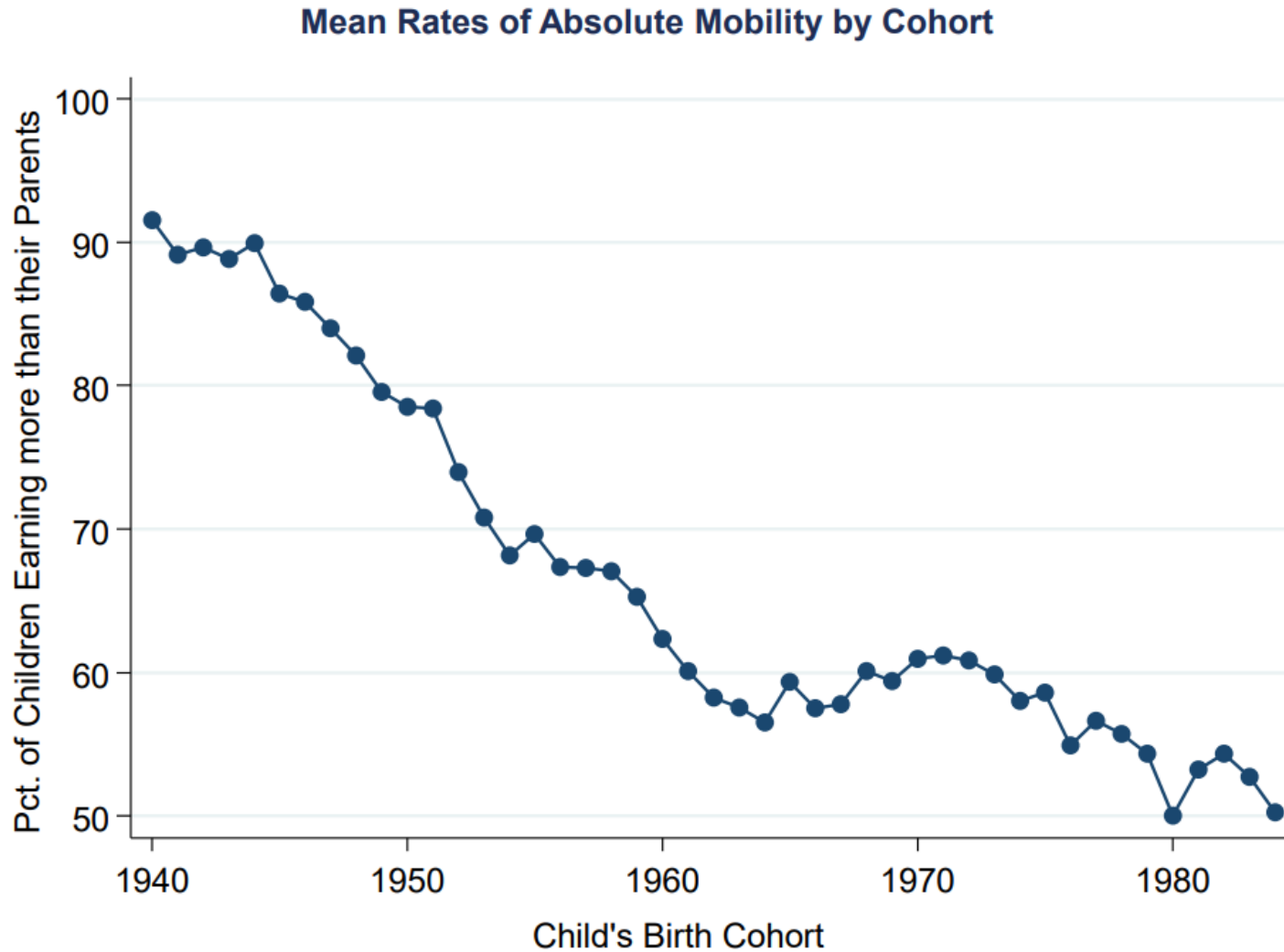
Income Inequality

Necessity

Both the extent of flat or falling incomes and the forces driving the phenomenon **vary considerably among countries.**

% of population in groups with flat or falling market income, 2005–14¹





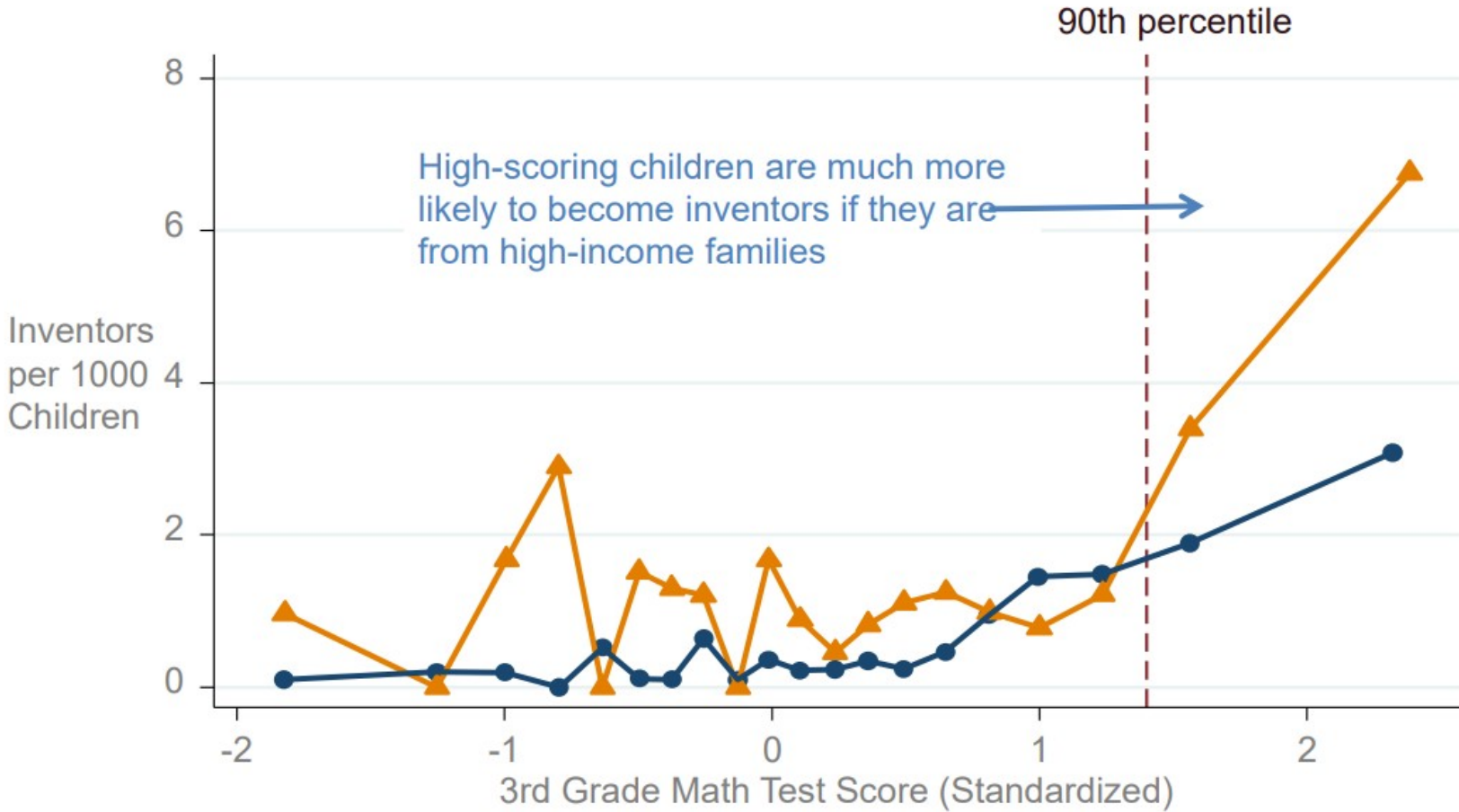
*The Fading American Dream
-Trends in Absolute Income
Mobility Since 1940, February
2017*

Raj Chetty, Stanford Economics
David Grusky, Stanford Sociology
Maximilian Hell, Stanford Sociology
Nathan Hendren, Harvard Economics
Robert Manduca, Harvard Sociology
Jimmy Narang, UC-Berkeley Economics

Lost Einsteins

Necessity

Patent Rates vs. 3rd Grade Math Test Scores



Parent Income Above 80th Percentile

Parent Income Below 80th Percentile

If women, minorities, and children from low-income families invent at the same as high-income white men, the innovation rate in America would 4x quadruple.

(Raj Chetty, The Equality of Opportunity Project, Stanford University)

Inequality in labor income/labor tax

Necessity

10,000 won

percentile	Labor income	Taxable	Determined	Original tax	Tax exemption
0.1%	65,500.7	60,657.1	19,796.9	22,950.3	3,153.4
1.0%	14,190.0	11,003.8	2,128.2	3,476.5	1,348.3
10.0%	7,008.2	4,289.8	369.2	1,160.0	790.7
20.0%	5,000.0	2,636.4	150.6	678.0	527.4
30.0%	3,775.2	1,785.5	57.7	458.3	400.6
50.0%	2,299.0	919.6	9.2	236.8	227.6
60.0%	1,806.3	602.9	4.0	162.9	158.9
70.0%	1,404.2	396.9	0.0	102.6	102.6
80.0%	960.5	198.5	0.0	57.6	57.6
90.0%	462.7	0.0	0.0	27.8	27.8
100.0%	0.0	0.0	0.0	0.0	0.0
total	562.5T	299.6T	28.3T	84.1T	55.8T

Gini coefficient
0.47

The top 0.1% income is 141 times the bottom 10% income.

The tax exemption for the top 0.1% is 31.5 million won, while the tax exemption for the bottom 10% is only 278 thousand won.

If we give BI to the rich

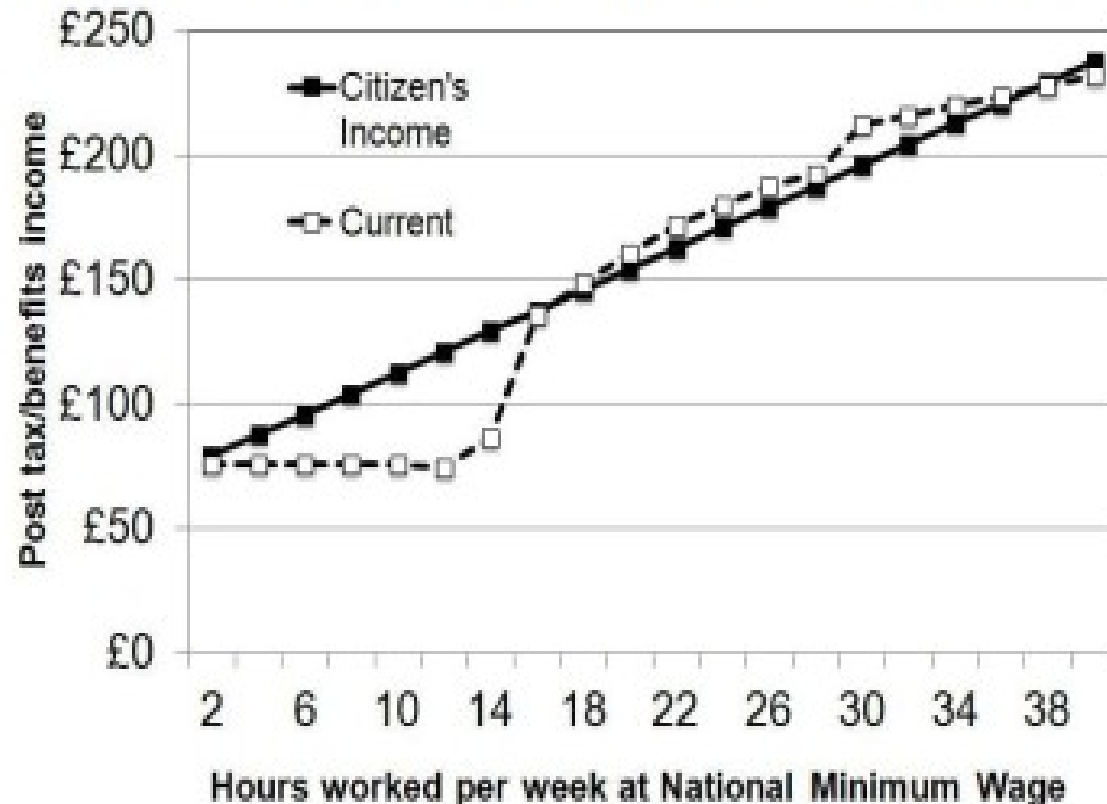
Discussion

policy	Selective guarantee				Basic income			
	1	2	3	계	1	2	3	계
person								
income	0	200	800	1000	0	200	800	1000
subsidy	30	0	0	30	30	30	30	90
tax	0	6	24	30	0	18	72	90
Tax rate	0%	3%	3%		0%	9%	9%	
Net benefit	30	-6	-24	0	30	12	-42	0

- The burden of the rich becomes greater.
- The middle class becomes net beneficiaries.
- The nominal tax is 90, but the net tax is 42.

- Only low-income class becomes net beneficiaries vs. Middle class also becomes net beneficiaries
- The burden on high-income class is small vs. The burden on high-income class is large.
- The nominal tax equals the net tax. vs. The net tax is around half the nominal tax.
- Administration costs are high. vs. Administration costs are small.
- Stigma effect is large vs. Stigma effect is small.
- The take-up rate is less than 100% vs. The take-up rate is 100%.
- There is a possibility of unfair consequences. vs. There is a possibility of unfair consequences.

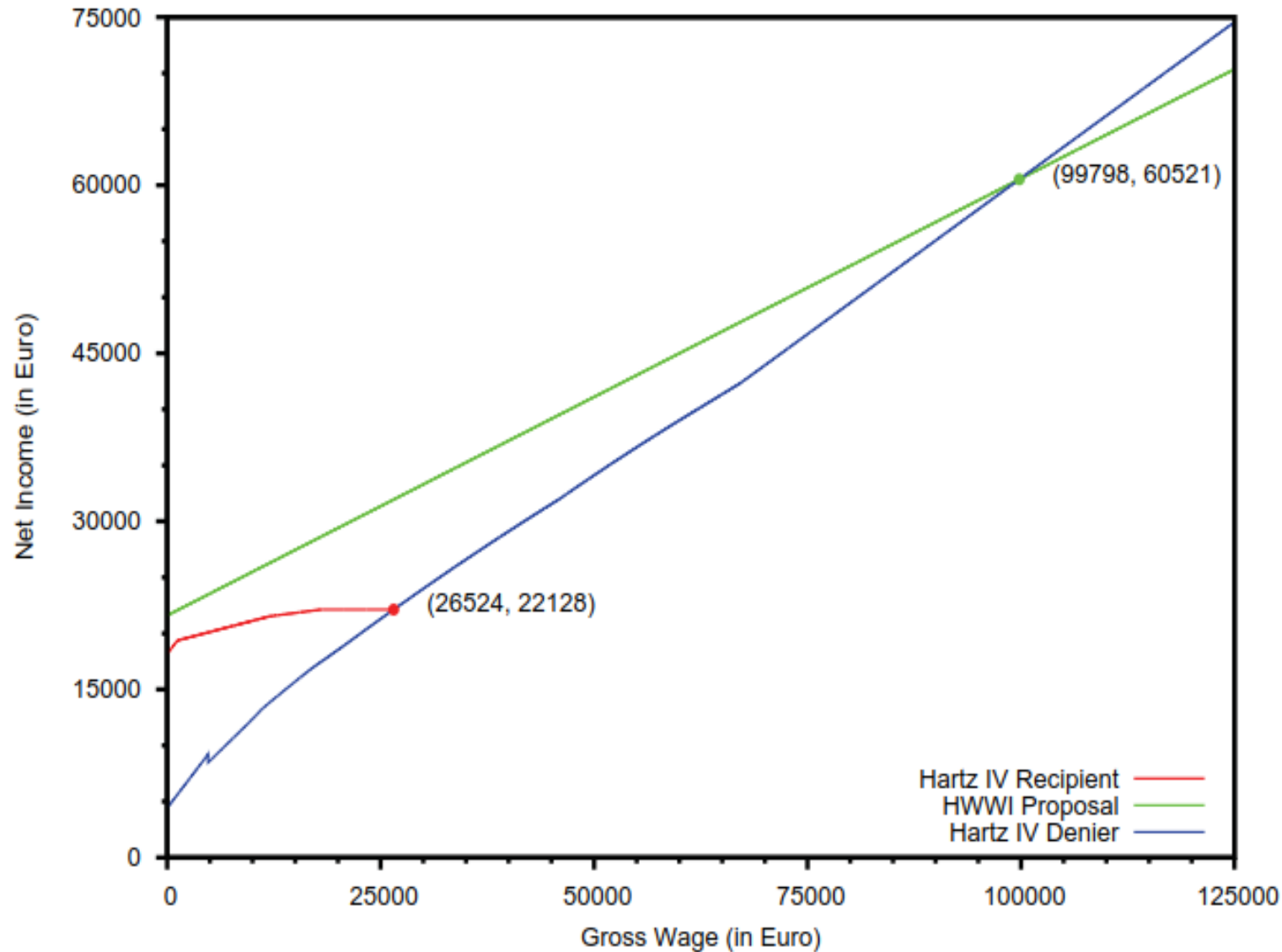
- Selective income guarantee, not BI, eliminate labor incentives.
- Under selective income guarantee, marginal tax rate is almost 100%. Sometimes, more than 100%.



UK's current welfare system vs. BI

Labor incentive-Germany

Discussion



There is little increase in income up to 26,000 euros under the current selective income guarantee system.

= welfare trap

- Sir Christopher Pissarides
- In 2010, awarded the Nobel Prize in Economics. Labor Economics
- 2016 World Economic Forum
 - The pie is growing bigger, there is no guarantee that everyone will benefit if we leave the market alone. In fact, if anything, we think that not everyone will benefit if we leave the market alone. So we need to develop a new system of redistributions, new policies that will redistribute inevitably from those that the market would have rewarded in favour of those that the market would have left behind. Now, having a universal minimum income is one of those ways, in fact, it is one I am very much in favour of, as long as we know how to apply it without taking away incentive to work at the lower end of the market.

- 2017. 6. 22~26 Lindau meeting in Germany
- Chris Pissarides(2010, Labor economics), "Universal basic income is an easy way of providing for the basic needs of life."
- Daniel McFadden(2000, econometrics) advocated unconditional income transfers to relieve poverty.
 - Casinos in native American communities along the Rio Grande
- Peter Diamond(2010, labor economics) advocated universal basic income in a conversation with Steve Schifferes of City University, London.

- Question: What do they have in common?
Jan Tinbergen(1969), Paul Samuelson(1970), Friedrich Hayek(1974), Gunnar Myrdal(1974), Milton Friedman(1976), James Meade(1977), Herbert Simon(1978), James Tobin(1981), George Stigler(1982), James Buchanan(1986), Robert Solow(1987), James Mirrlees(1996), Amartya Sen(1998), Daniel McFadden(2000), Joseph Stiglitz(2001), Vernon Smith(2002), Paul Krugman(2008), Christopher Pissarides(2010), Peter Diamond(2010), Robert Shiller(2013), Angus Deaton(2015)
- Answer: Nobel Laurates in economics who supported BI

- 2013 Regional Input Output Table(Bank of Korea, 2015)

	Gyeonggi	Other Regions	Total
Production inducement coefficient	1.059	0.795	1.855
Value added inducement coefficient	0.417	0.278	0.695
Employment inducement coefficient	7.2	5.0	12.1

Youth dividend expenditure of 175 bn won is estimated to increase regional income by 248 billion won and national income by 296.6 billion won.

- Promotion of consumption and resource circulation, local economic circulation effect.
- Increase in purchasing power and volume in the region, multiplier effect in the region
- Prevention of outflow of capital outside the region, contributing to the endogenous development of the region
- Activate local communities and establish local network and social capital
- It makes small businesses participate in the welfare alliance.

Local Currency

- Small business owners voluntarily posted placards that welcomed the passage of the Youth Dividend Ordinance.
- In the case of Seongnam City, the youth dividend increased the revenues of small businesses by 27%.



Youth Dividend

Effects on young people

Income levels do not affect the approval rate.

Income level	Against	For	Row sum
Less than 30만원	37	992	1029
	0.036	0.964	0.369
30~50만원	10	351	361
	0.028	0.972	0.130
More than 50만원	38	1359	1397
	0.027	0.973	0.501
Column sum	85	2702	2787
	0.030	0.970	

Chi² = 1.646223, d.f. = 2, p = 0.4390634

Youth Dividend

Income source	Against	For	Row sum
Parents	55	1260	1315
	0.042	0.958	0.468
Self	30	1467	1497
	0.020	0.980	0.532
Column sum	85	2727	2812
	0.030	0.970	

Chi² = 11.33377, d.f. = 1, p = 0.0007611009

There is a high rate of approval among young people who do their own work.

Effects on young people

Youth Dividend

문항	빈도(%)					
	매우	어느정도	별로	전혀	무응답	전체
청년배당이 생활에 실질적으로 도움이 되었습니까?	148 (40.3)	202 (55.0)	14 (3.8)	3(0.8)	0	367
청년배당을 통해 성남시가 청년의 삶을 배려한다는 느낌을 받으셨습니까?	293 (58.8)	179 (35.9)	20 (4.0)	6(1.2)	0	498
청년배당을 통해 성남시(지역)에 관심을 갖게 되었습니까?	197 (39.6)	279 (56.0)	18 (3.6)	2(0.4)	2(0.4)	498
청년배당이 지역경제 활성화에 도움이 된다고 생각하십니까?	219 (44.0)	246 (49.4)	29 (5.8)	2(0.4)	2(0.4)	498
청년배당을 통해 청년정책에 관심을 갖게 되었습니까?	174 (34.9)	279 (56.0)	40 (8.0)	3(0.6)	2(0.4)	498
성남시 재정운영 차원에서 청년배당 예산은 적절한 사용이라고 생각하십니까?	186 (37.3)	272 (54.6)	34 (6.8)	4(0.8)	2(0.4)	498
청년배당의 필요성에 대해 성남시가 충분히 홍보했다고 생각하십니까?	219 (44.0)	212 (42.6)	62 (12.4)	3(0.6)	2(0.4)	498
청년배당 대상자에게 조건 없이 동일한 금액을 지급한 것은 적절하다고 생각하십니까?	170 (34.1)	251 (50.4)	59 (11.8)	15(3.0)	3(0.6)	498
만일 귀하가 청년배당 대상연령을 지나서 정책 혜택을 받지 못하더라도 청년배당 정책이 유지되는 것이 필요하다고 생각하십니까?	212 (42.6)	257 (51.6)	21 (4.2)	6(1.2)	2(0.4)	498

The political interest of young people has increased.

Youth dividend policy should continue even though I can not afford it.

녹색전환연구소(2016)

	19세	20대 전반	20대 후반	30대 전반	30대 후반	40대	50대	60대	70대	80세 이상
--- '16 20대 국선	53.6	55.3	49.8	48.9	52.0	54.3	60.8	71.7	73.3	48.3
--- '14 6회 지선	52.2	51.4	45.1	45.1	49.9	53.3	63.2	74.4	67.3	
--- '12 18대 대선	74.0	71.1	65.7	67.7	72.3	75.6	82.0	80.9		
--- '12 19대 국선	47.2	45.4	37.9	41.8	49.1	52.6	62.4	68.6		
--- '10 5회 지선	47.4	45.8	37.1	41.9	50.0	55.0	64.1	69.3		
--- '08 18대 국선	33.2	32.9	24.2	31.0	39.4	47.9	60.3	65.5		
--- '07 17대 대선	54.2	51.1	42.9	51.3	58.5	66.3	76.6	76.3		
--- '06 4회 지선	37.9	38.3	29.6	37.0	45.6	55.4	68.2	70.9		

Turnout in the early 20s

2006 local election ~ 2012 presidential election: It was lower than the latter half of the 30s.

2014 local election It was lower than the turnout ratio of 40 or more.

2016 parliament election. It was higher than the turnout of the 40s, but lower than the 50s.

Turnout of young voters -2016 parliament

Youth Dividend

지역	전체	19세	20-24	25-29	30-34	35-39	40-49	50-59	60-69	70-79	80이상
전국	58.1	53.6	55.3	49.8	48.9	52	54.3	60.8	71.7	73.3	48.3
서울	59.5	58.2	58.5	54.5	53.6	55	55.5	59.9	71.7	75.1	49.2
경기	57.6	55.5	56.5	50.5	50	53.6	54.7	59.6	70.3	72.7	48.6
강원	57.9	46.6	52.1	49	47.7	49.1	53.5	60	72.1	74.6	48.3
충북	57.6	46.2	50.7	45	45.6	49.2	52.2	61.7	73.7	73.5	50.1
충남	55.4	47	48.6	43.2	43.4	48.5	52.5	60.6	70.4	69.6	46
전북	63.4	54.7	57.8	51.4	51.6	55.8	61.3	68.3	77	75	50.5
전남	63.9	50.8	55	50.4	50.7	54.8	61.1	70.3	78.5	76.5	50.8
경북	56.9	44.8	47.4	40.7	38.8	43.8	50.4	62	74.4	75.1	50.3
경남	57.1	49.9	52.6	47.4	47	49.9	54.2	61.1	69.7	70.3	45.6
성남수정구	54.2	54.7	58.8	50.7	49.1	50	47	52.4	68.9	69.6	40.3
성남중원구	55.4	57.7	56.7	49.1	48.2	52.4	51.6	54.4	68.8	70.8	52.5
성남분당구	65.5	55.8	61	58.4	61.1	64.2	63.9	67.4	77.1	79.7	55.8

- Health promotion of young people
 - I bought fruit for the first time in a few years.
- Contribution to equal opportunity
 - Increased self-development time
- Changes in welfare consciousness
 - The number of young people who responded that they are willing to pay more taxes for welfare has increased significantly.
 - A loved child becomes a loving adult.
- Changes in political consciousness
 - For the first time I came to think that the country would do something for me.
- Changes in political behavior
 - Voter turnout has increased.
 - If you make good products, consumers will respond with more purchases, and if you do good politics, voters will respond with more votes.