เราไปได้ไกลกว่านี้ไหม มุมมองจากข้อมูลแรงงานและการจ้างงาน

Have We Reached Our Potential?
A Perspective from Worker- and Firm- Level Data

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มหาวิทยาลัยหอการค้าไทย

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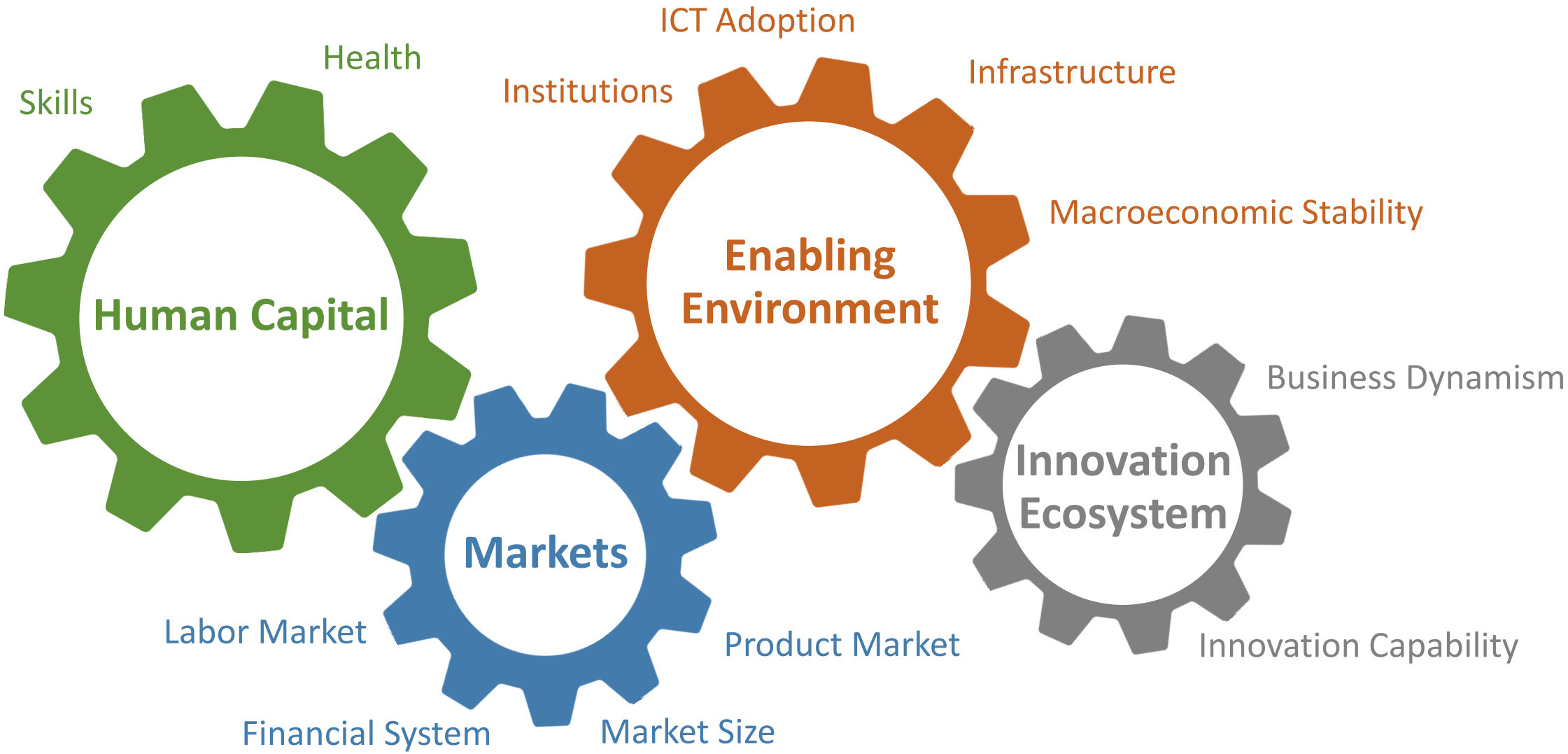
ธนาคารแห่งประเทศไทย
BANK OF THAILAND

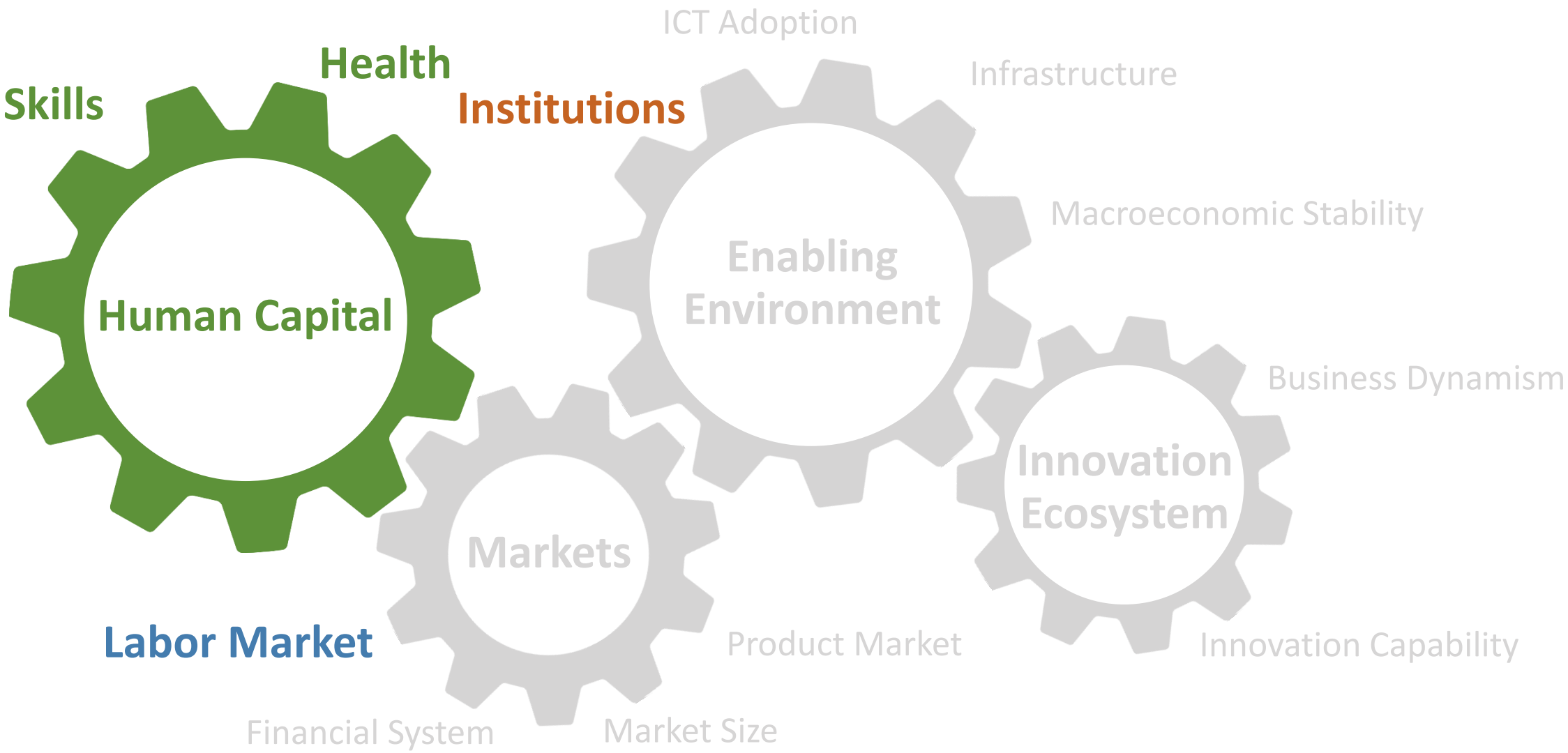
Sasiwimon Warunsiri Paweenawat
Chinnawat Devahastin Na Ayudhya
Nada Wasi
Pucktada Treeratpituk
Chommanart Nittayo

What drive competitiveness?



Source: World Economic Forum 2018

Have we reached our potential?



Source: World Economic Forum 2018

Data

Labor Force Survey (LFS)

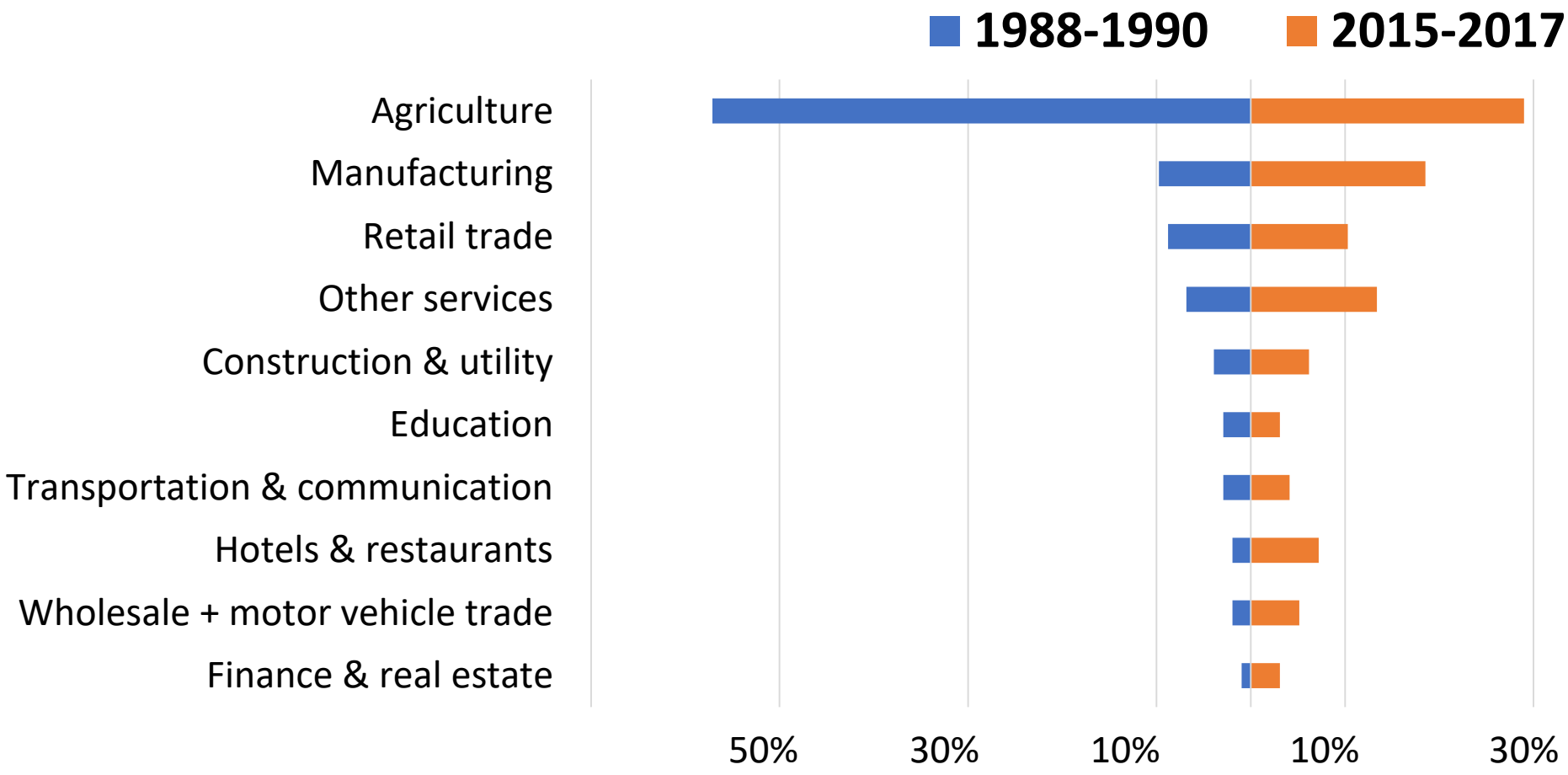
- National representative survey
- All sectors, including inactive

Social Security Office (SSO)

- Administrative data
- Private sector employees

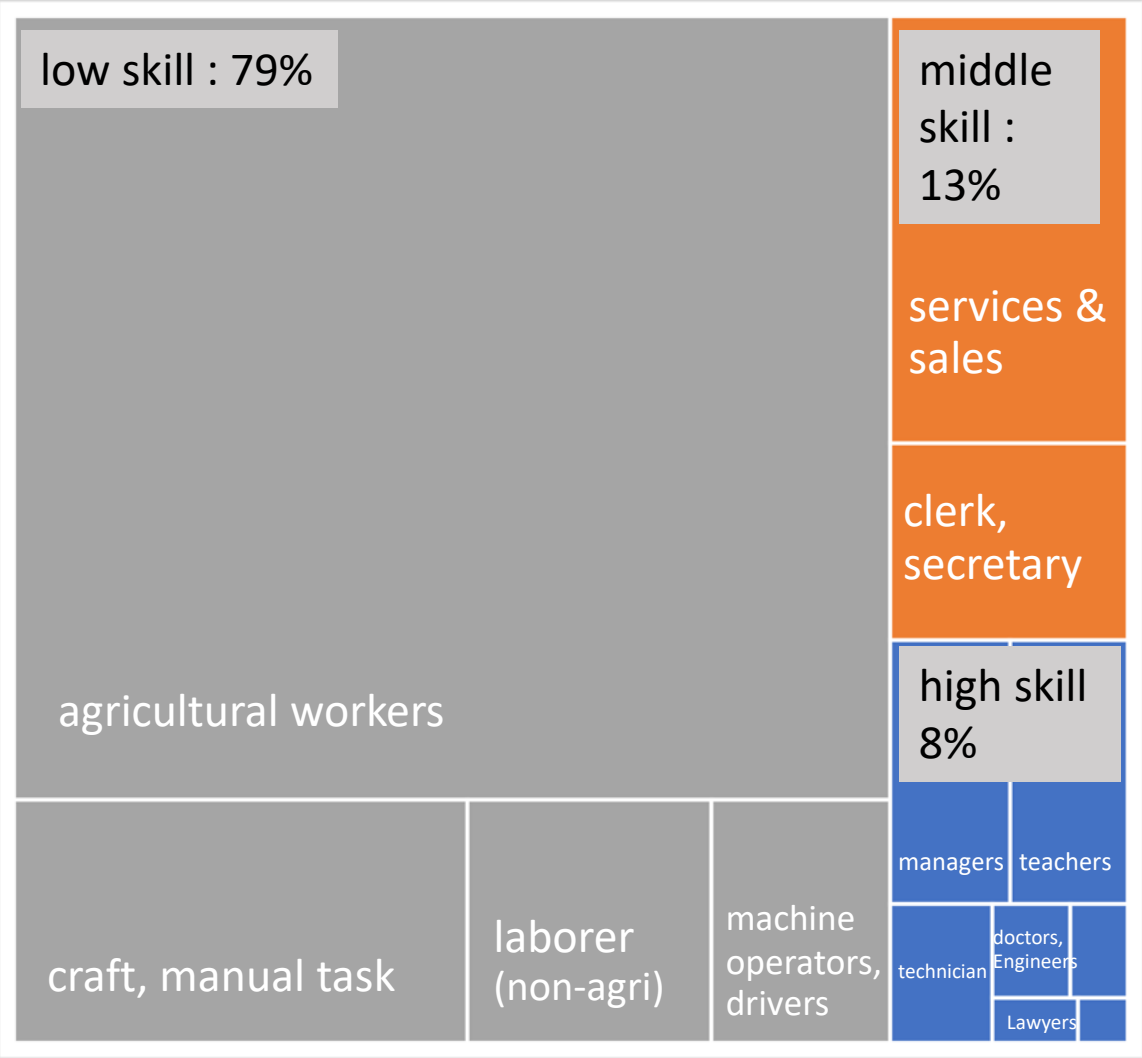
The Landscape of the Thai Labor Market

Industry employment shares



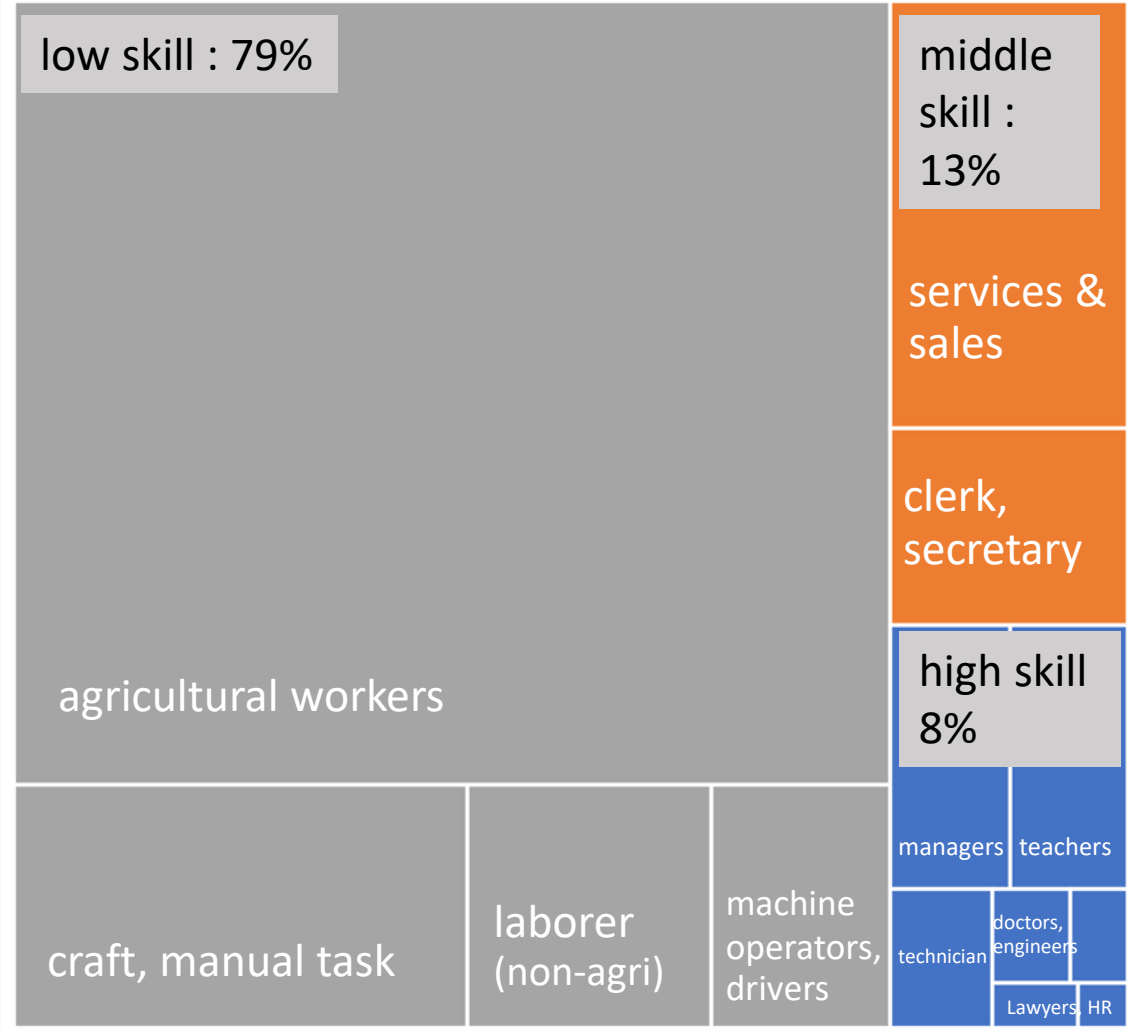
1988-1990: jobs were mostly low-skill

1988-1990

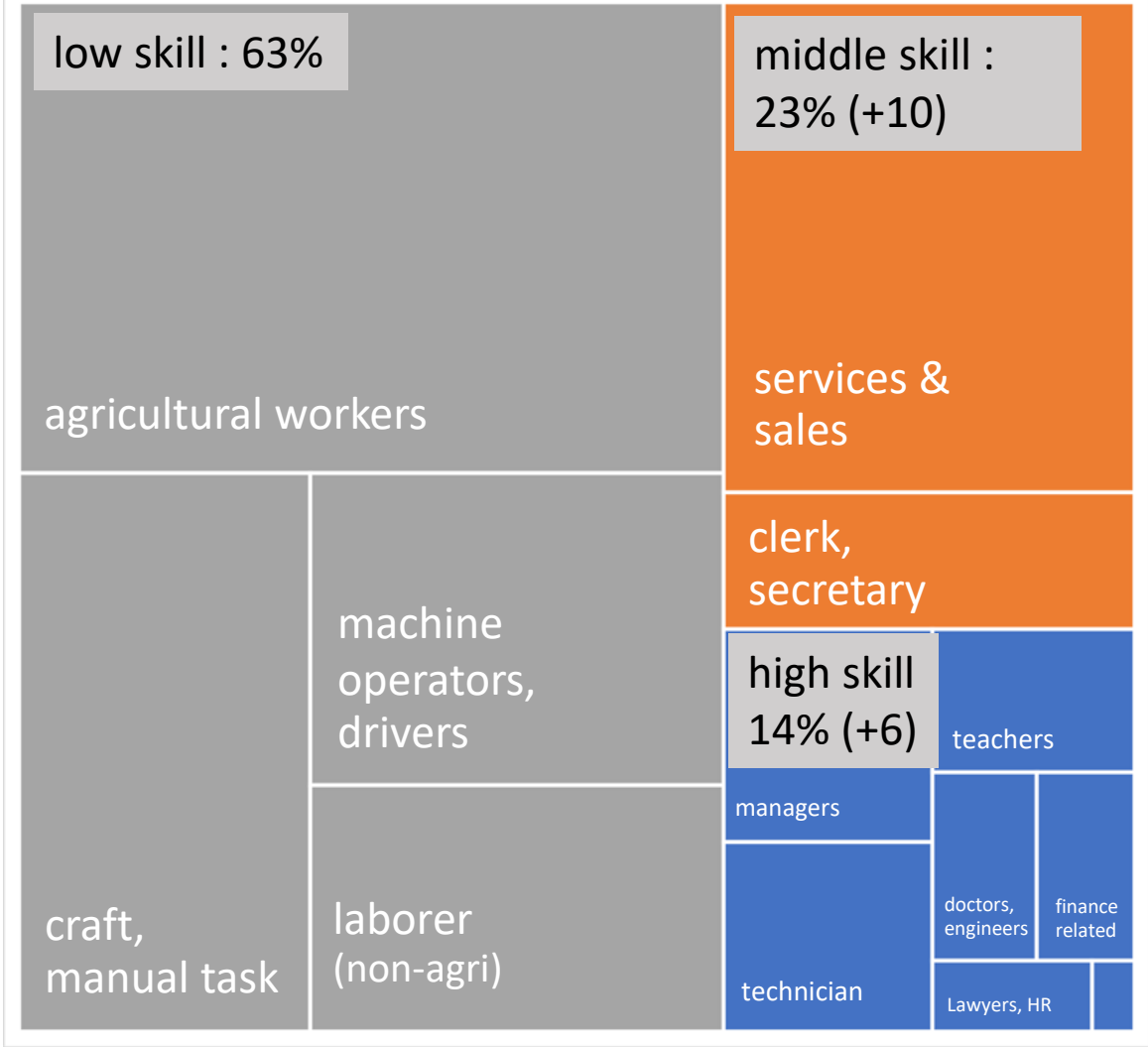


2015-2017: middle-skill & high-skill jobs moderately increased

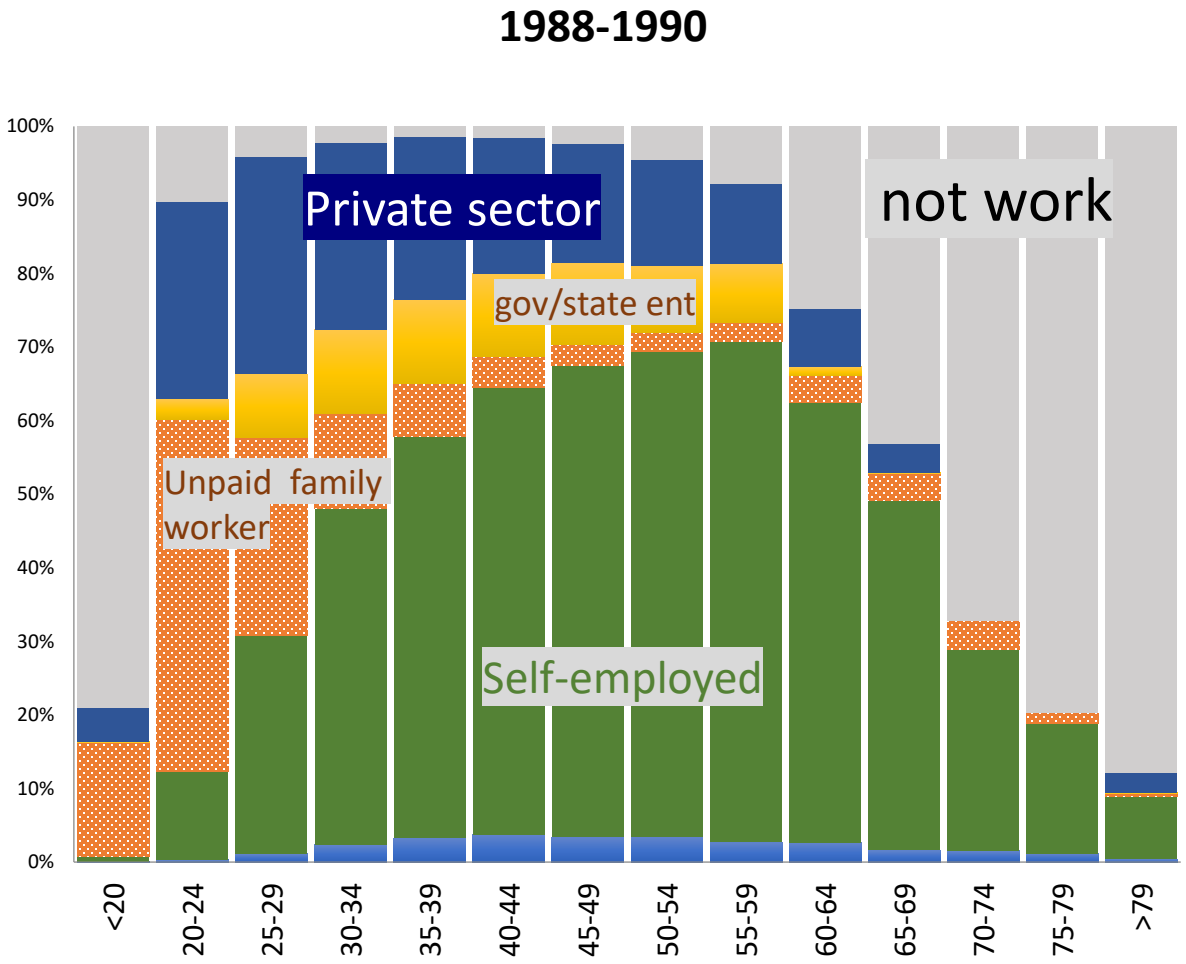
1988-1990



2015-2017

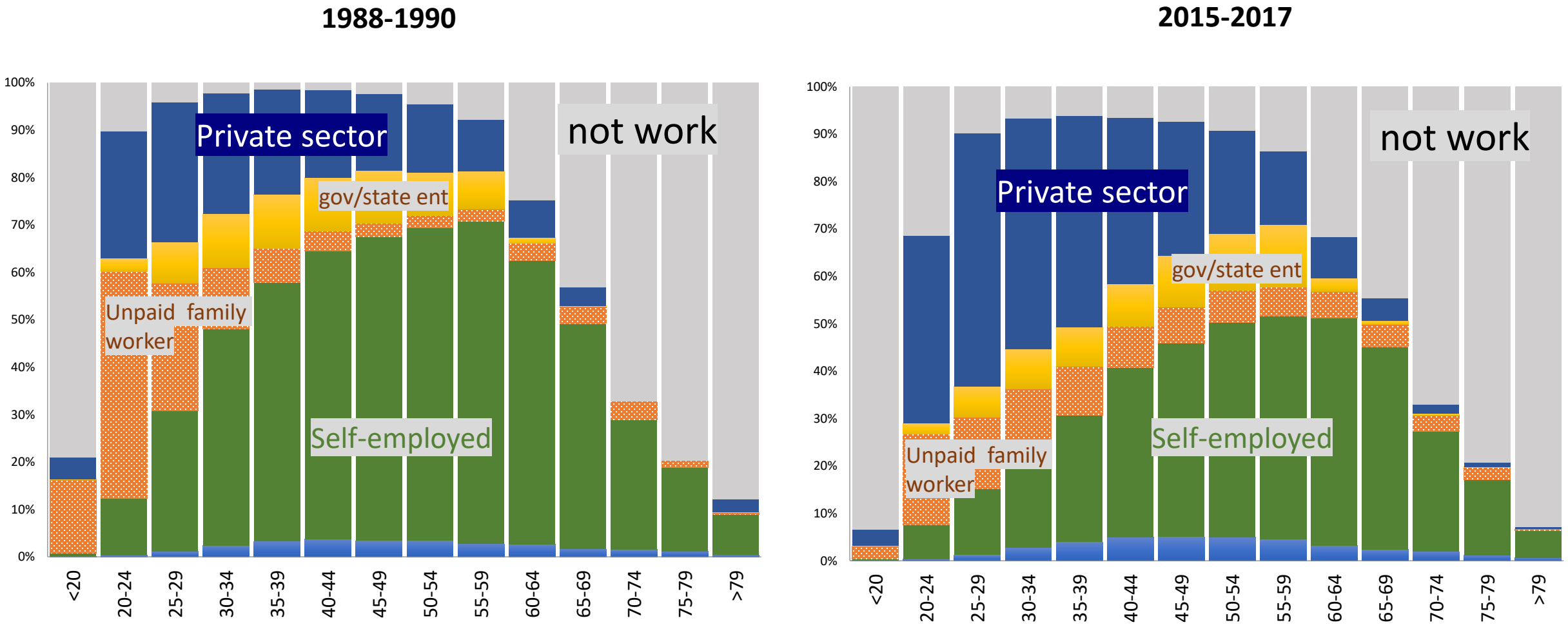


1988-1990: majority of workers were self-employed in agricultural sector



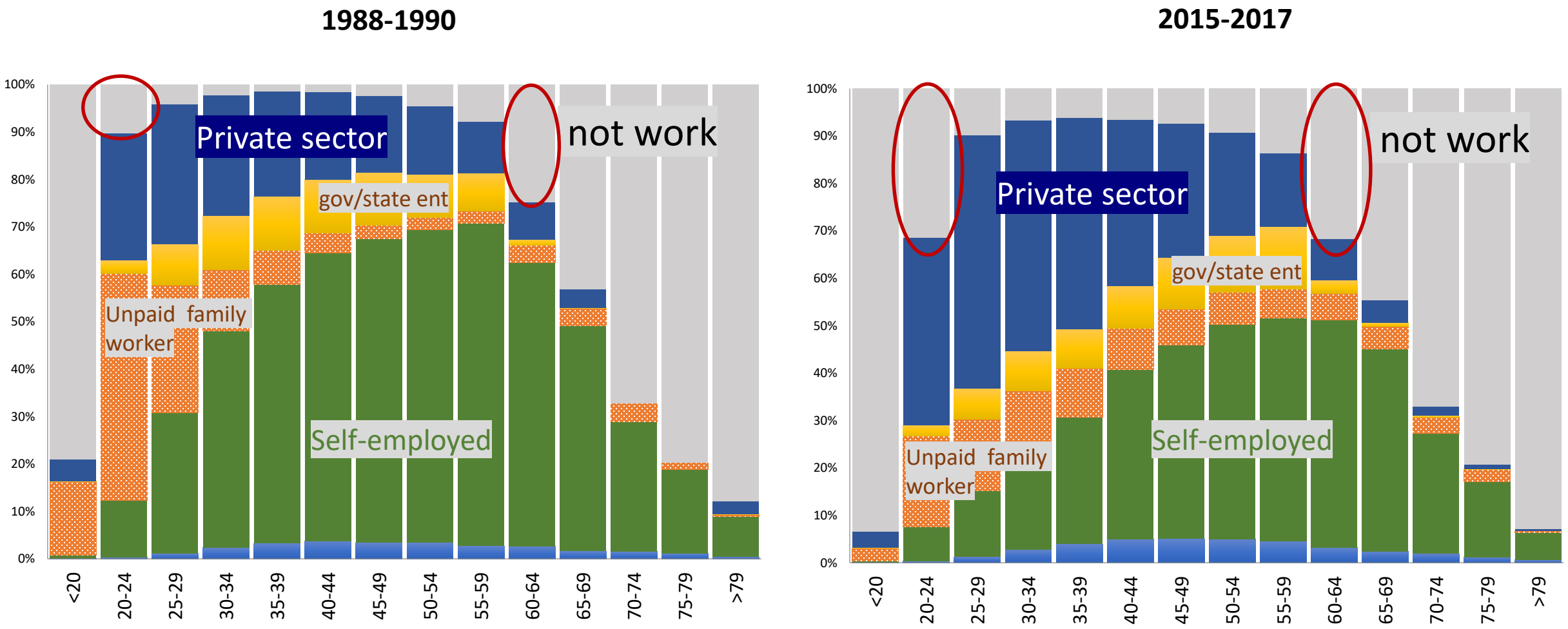
Working status over the life cycle (men)

Work over the life-cycle in 1988-1990 vs. 2015-2017



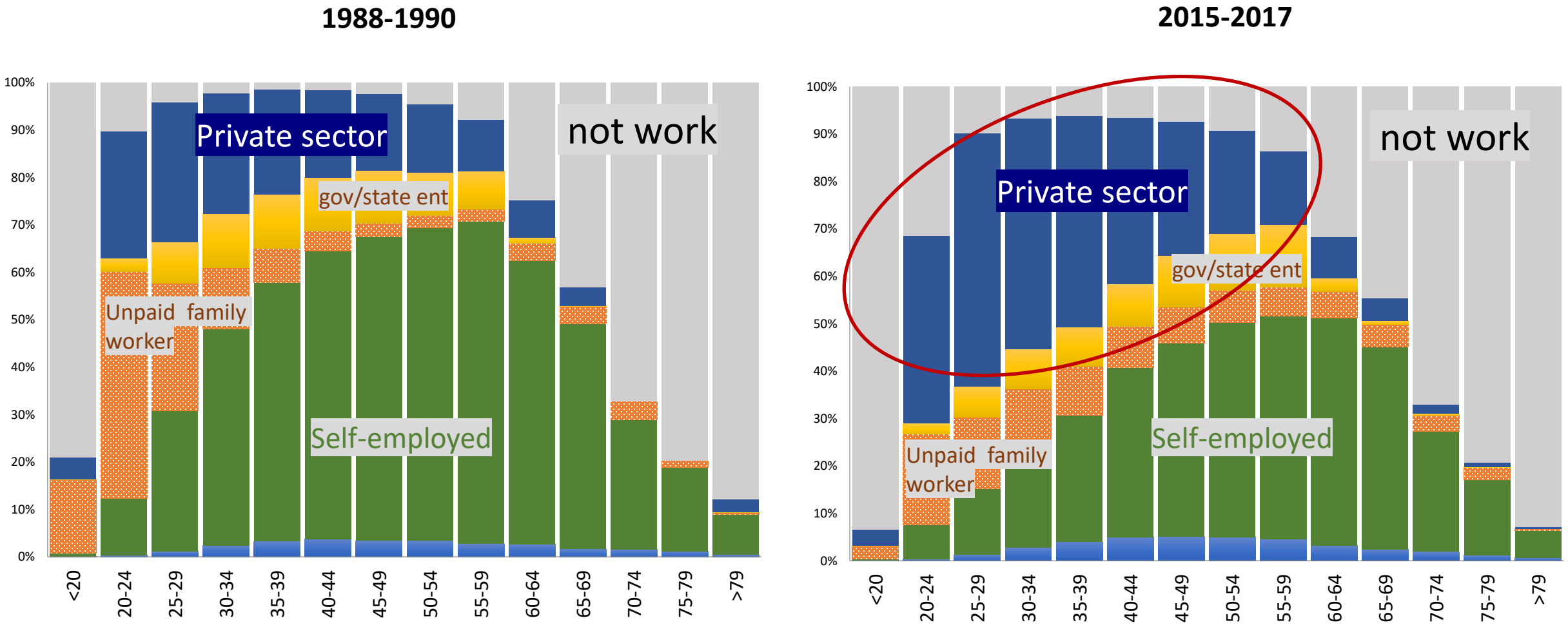
Working status over the life cycle (men)

2015-2017: entering the labor market later, retiring a little sooner



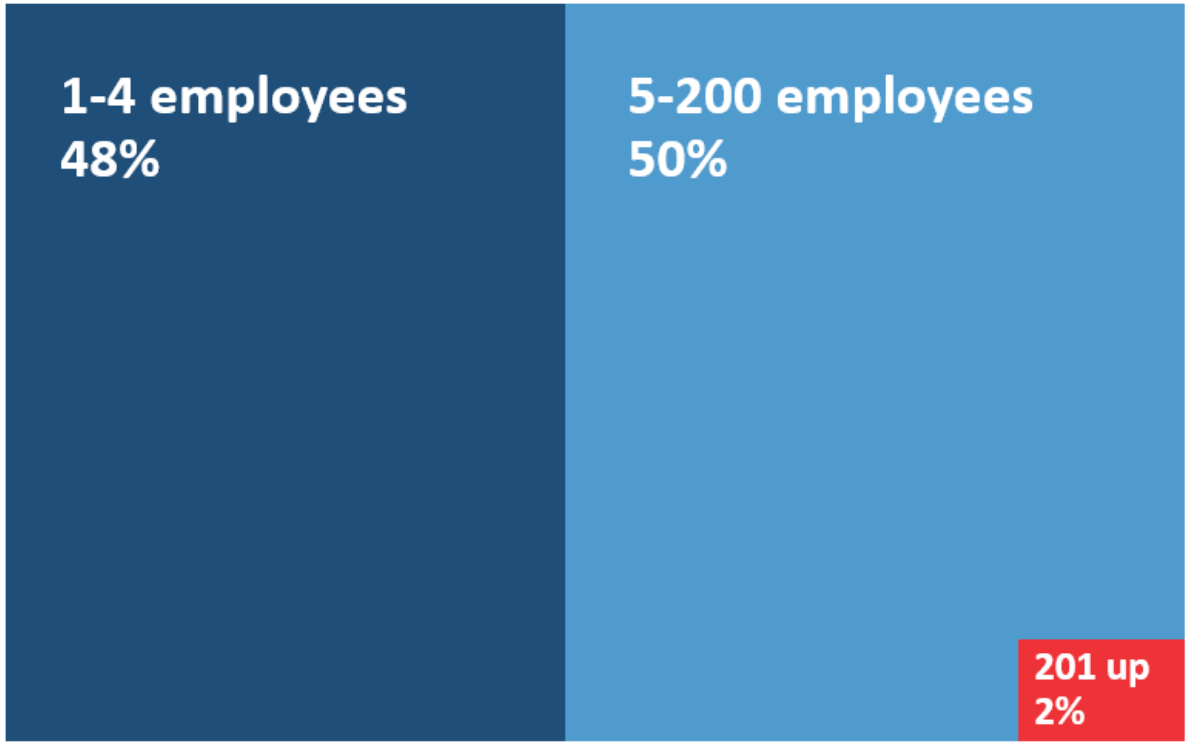
Working status over the life cycle (men)

2015-2017: private sector became more important

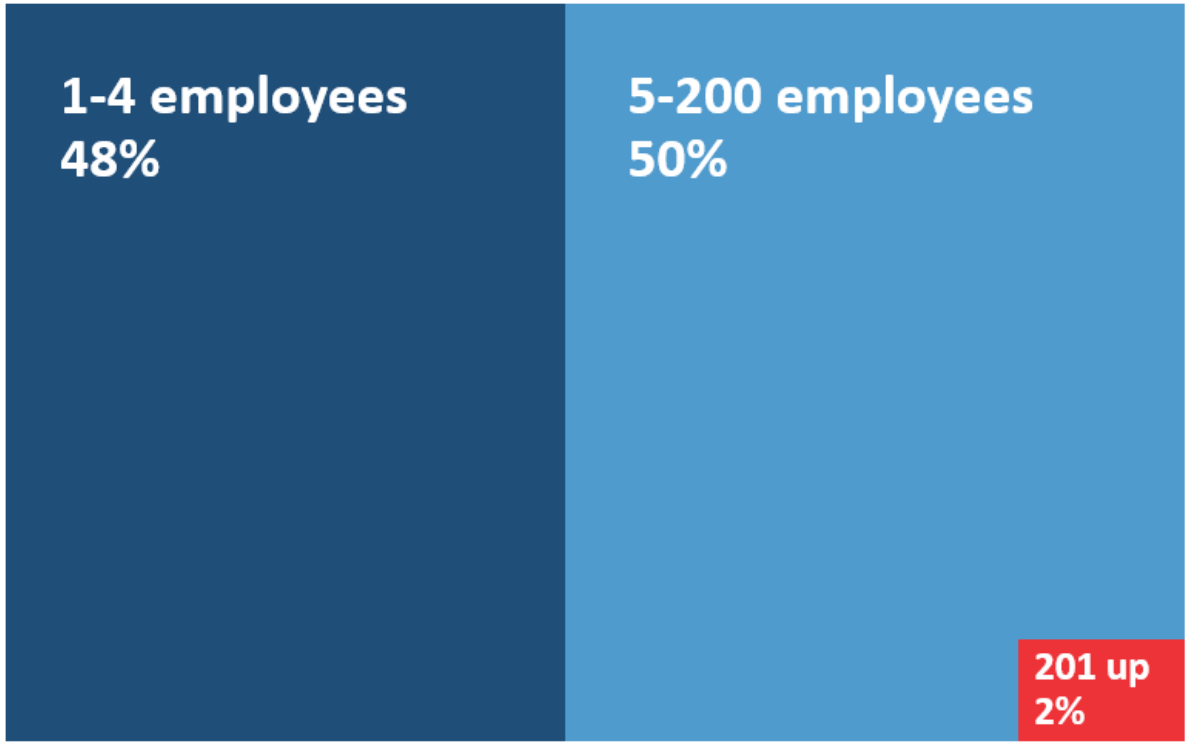


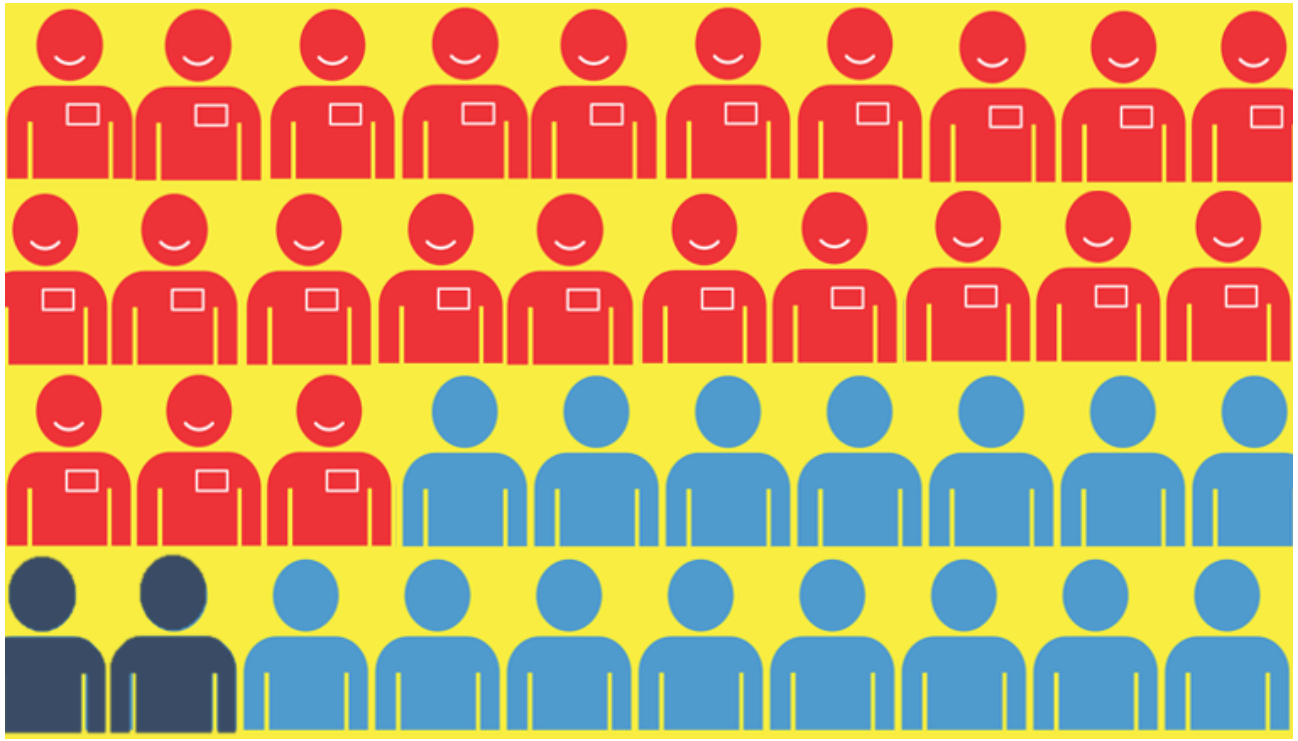
Working status over the life cycle (men)

Almost 50% of firms are micro firms

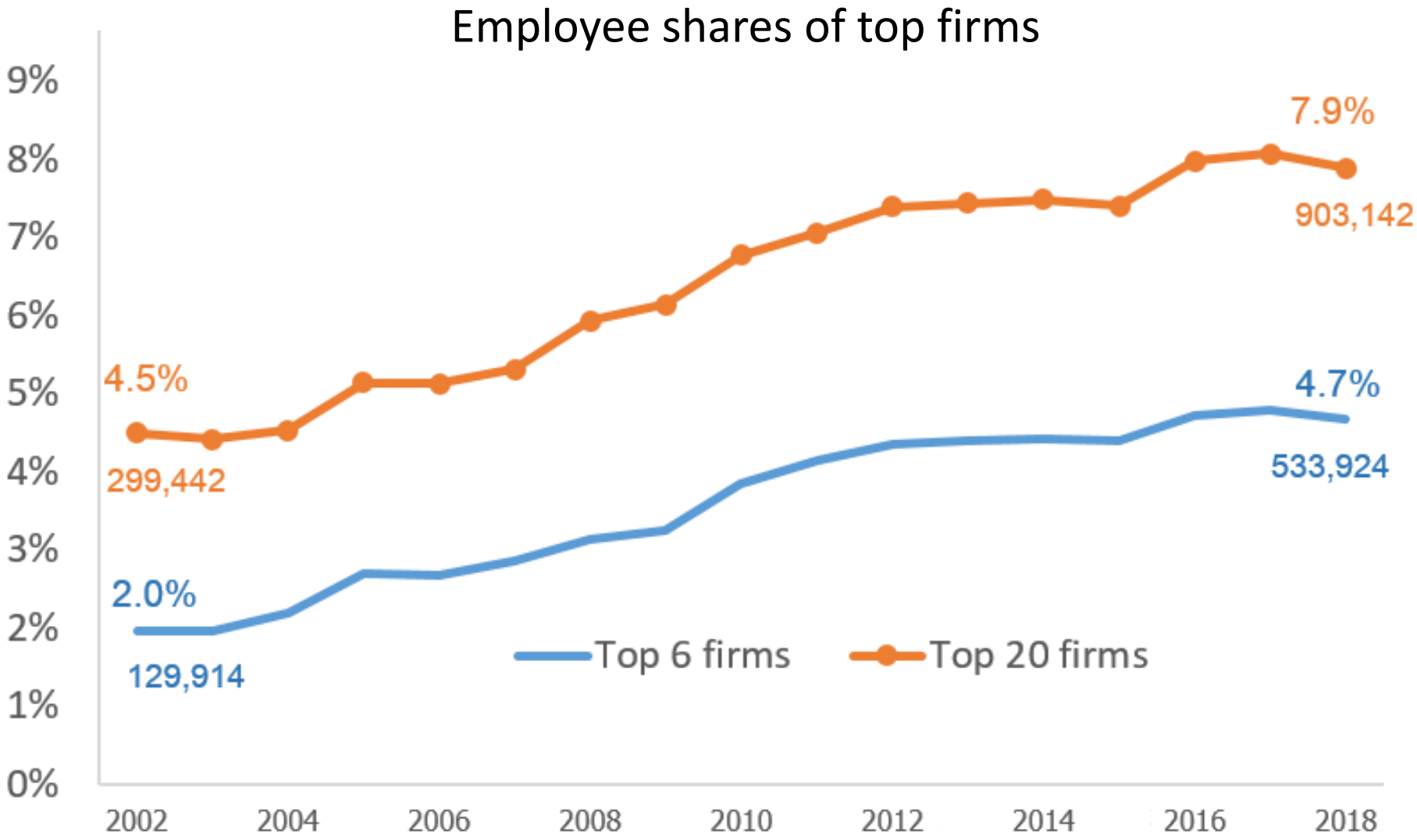


Large firms (2%) hire 58% employees

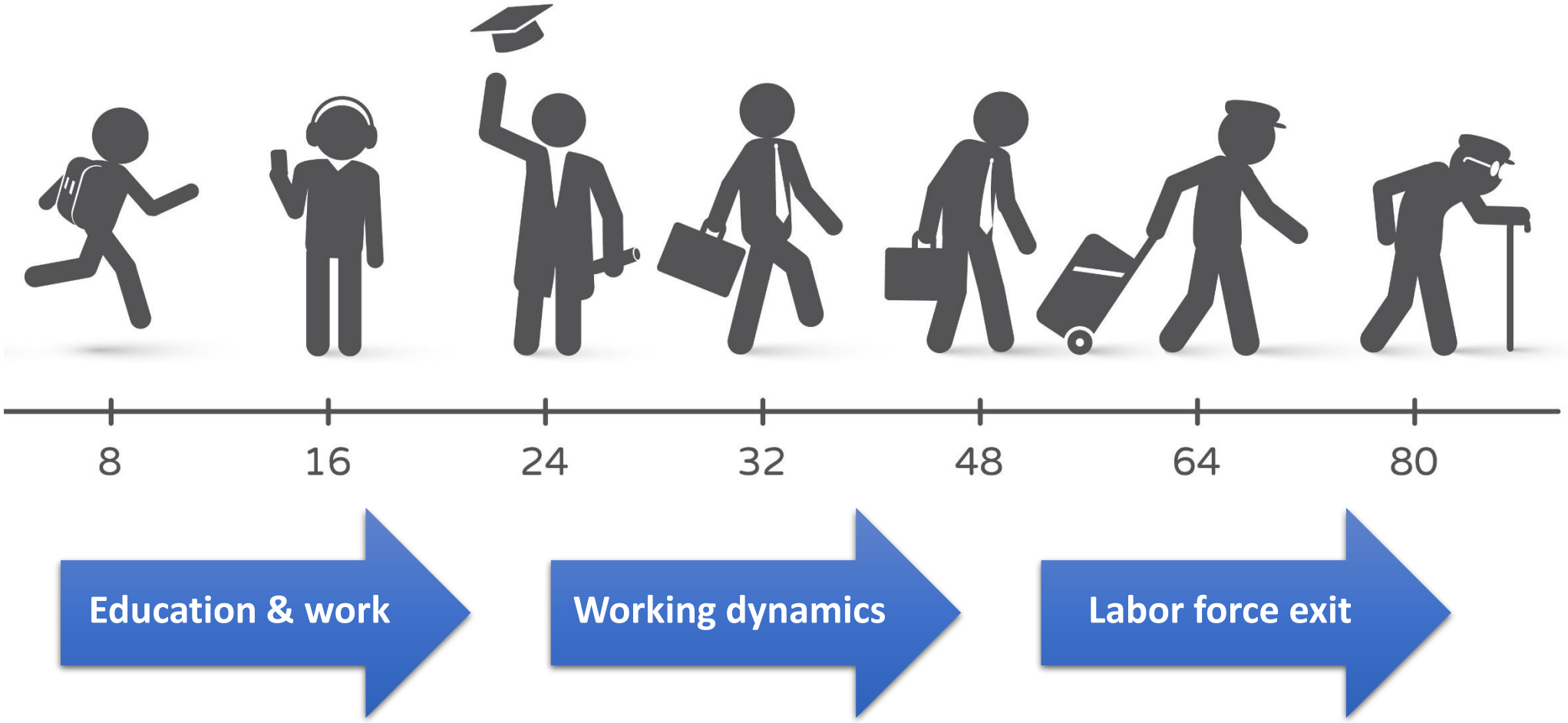




The large firms are very large and getting larger



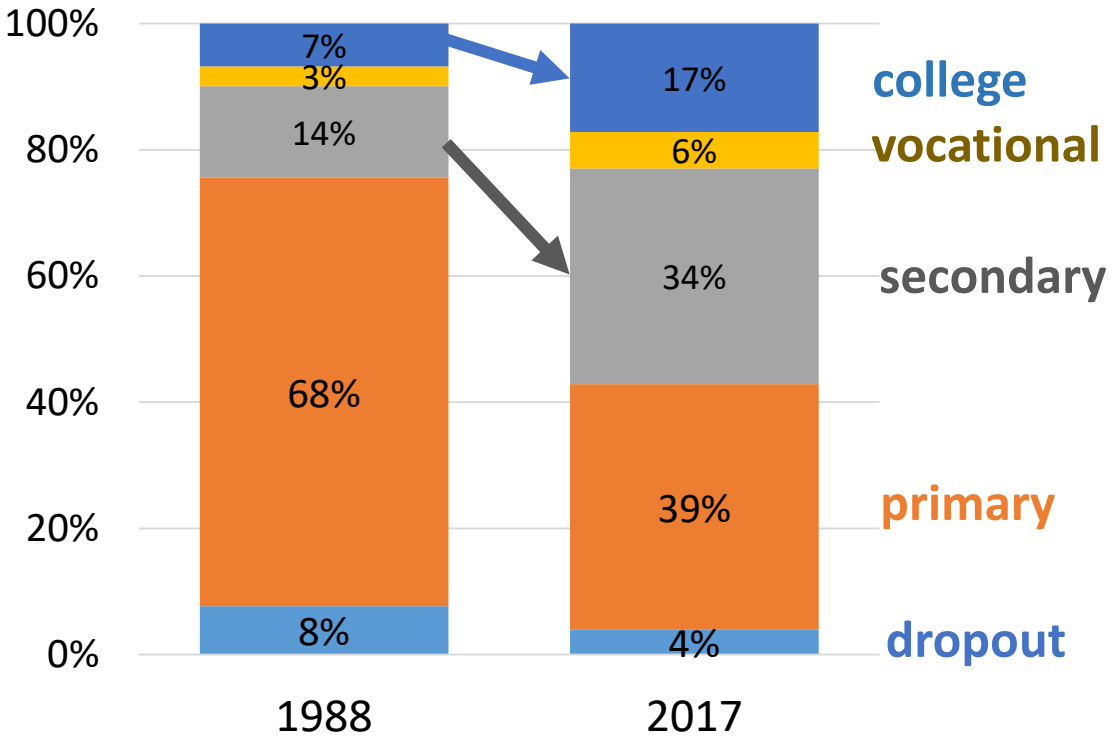
The Workers' Journey



The Workers' Journey

Education & work → **Working dynamics** → **Labor force exit**

Compared to 30 years ago, Thailand scores well in education



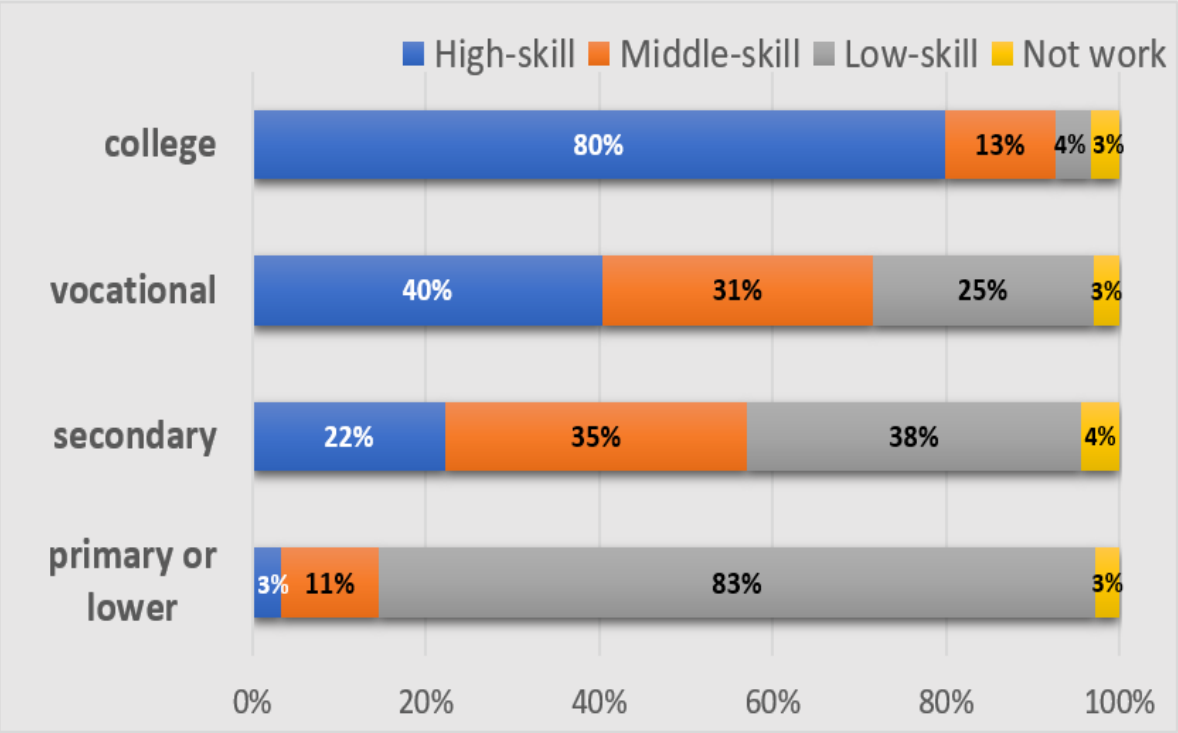
Does higher education lead to

- more high skill jobs?

- higher earnings?

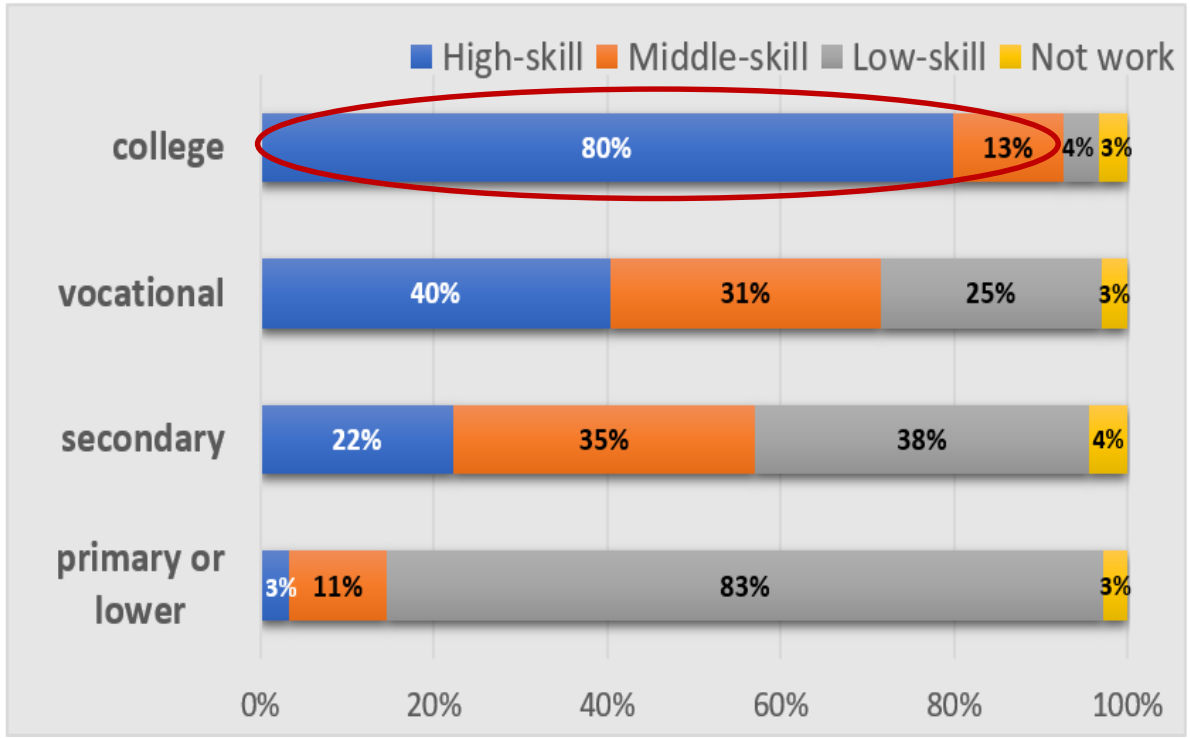
1988-1990: 80% of college workers held high-skill jobs
35% of secondary workers held middle-skill jobs

Men : 1988-1990

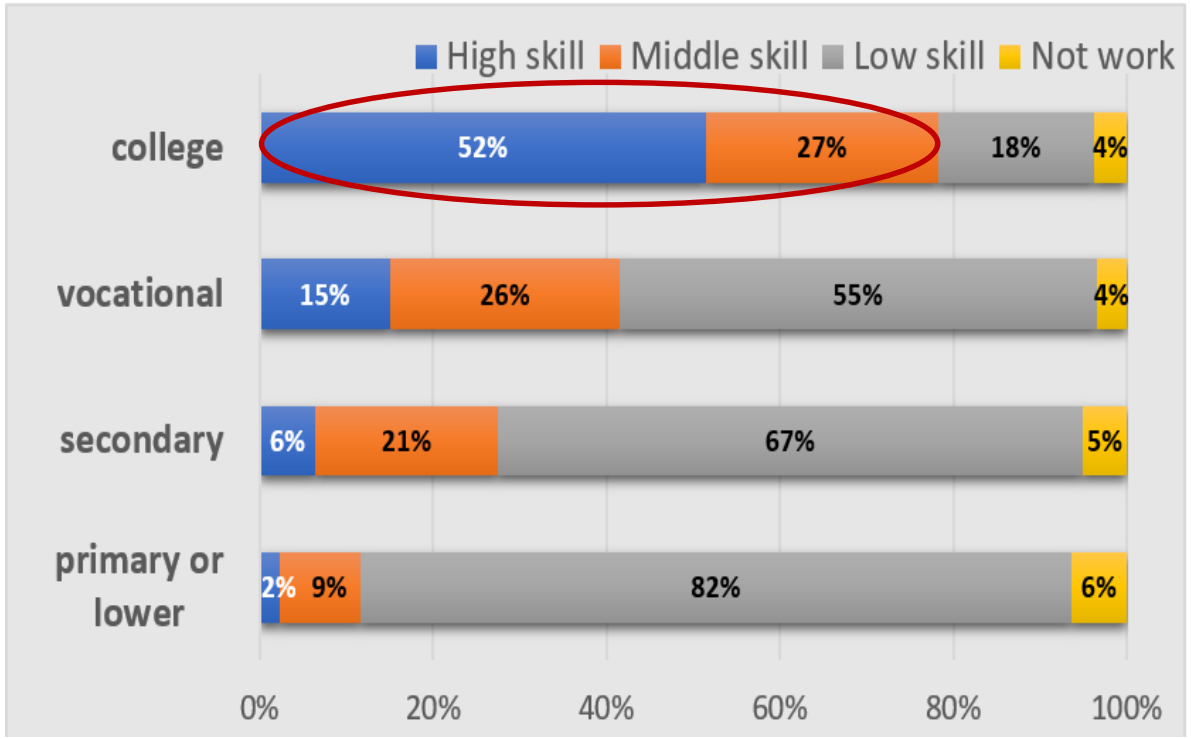


2015-2017: More college workers held middle-skill jobs

Men : 1988-1990



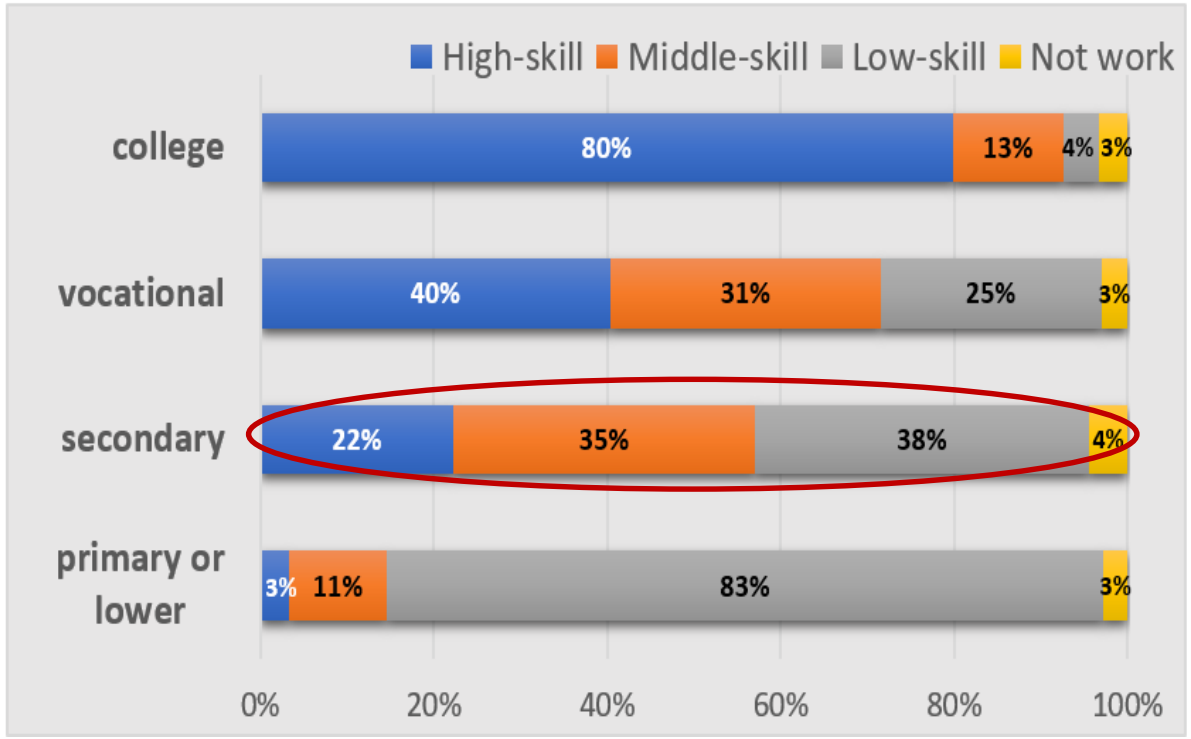
Men : 2015-2017



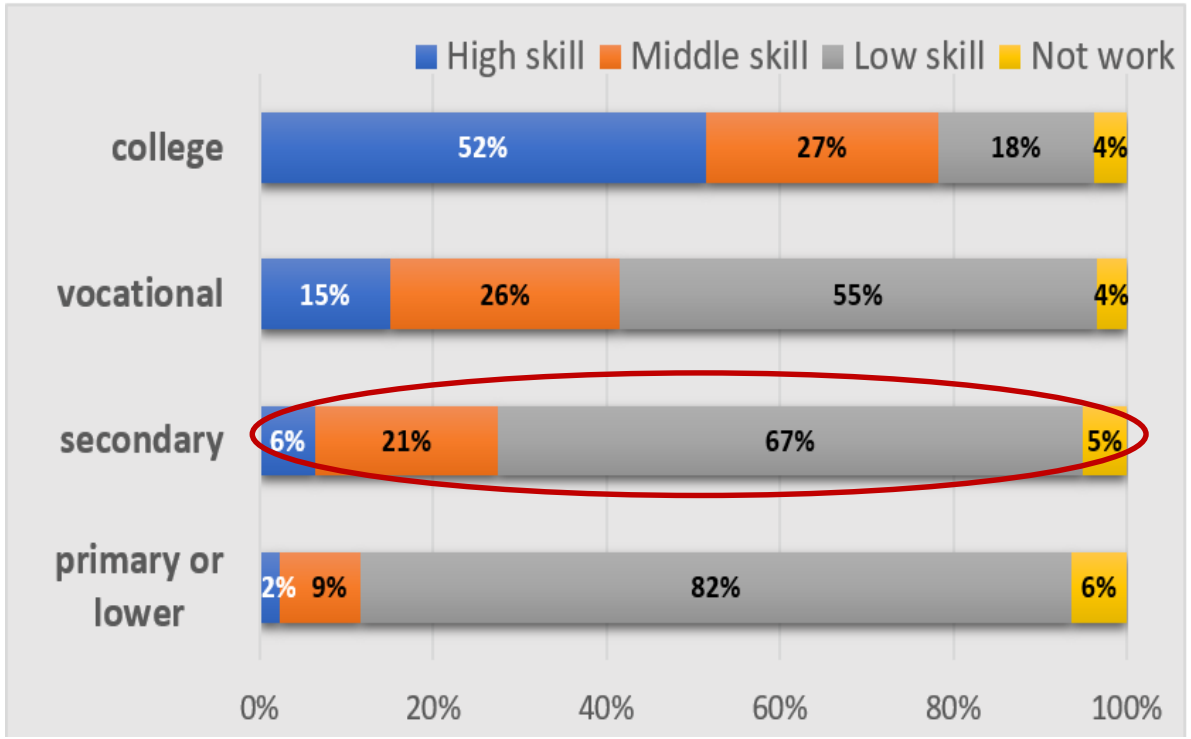
2015-2017:

More college workers held middle-skill jobs
More secondary workers held low-skill jobs

Men : 1988-1990

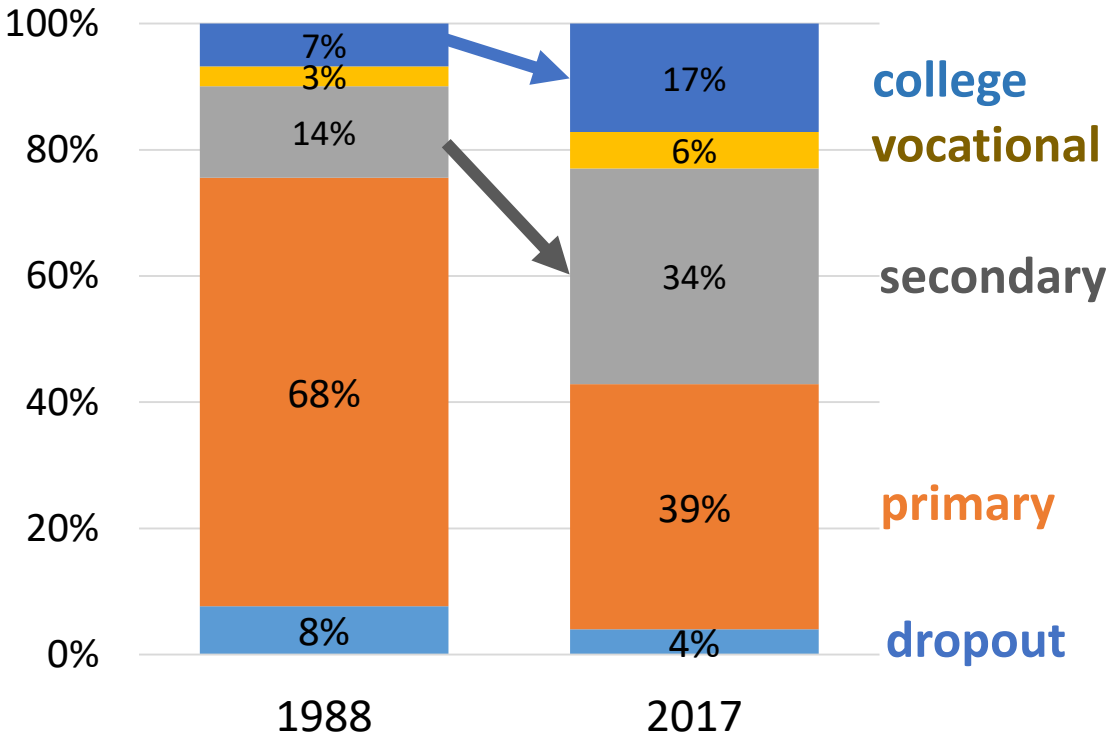


Men : 2015-2017



Concern #1 : Education & occupation mismatches

Compared to 30 years ago, Thailand scores well in education



Does higher education lead to

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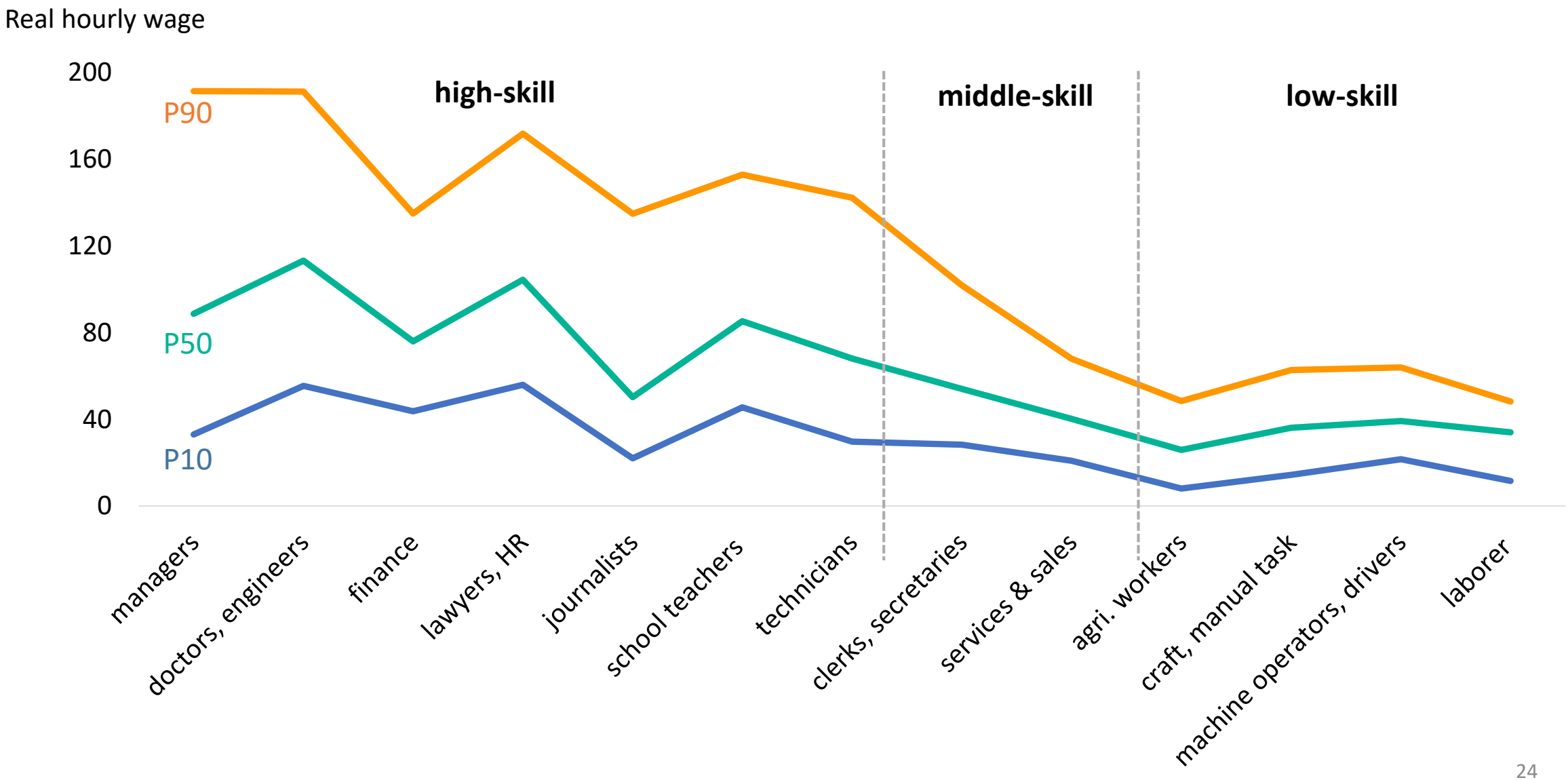
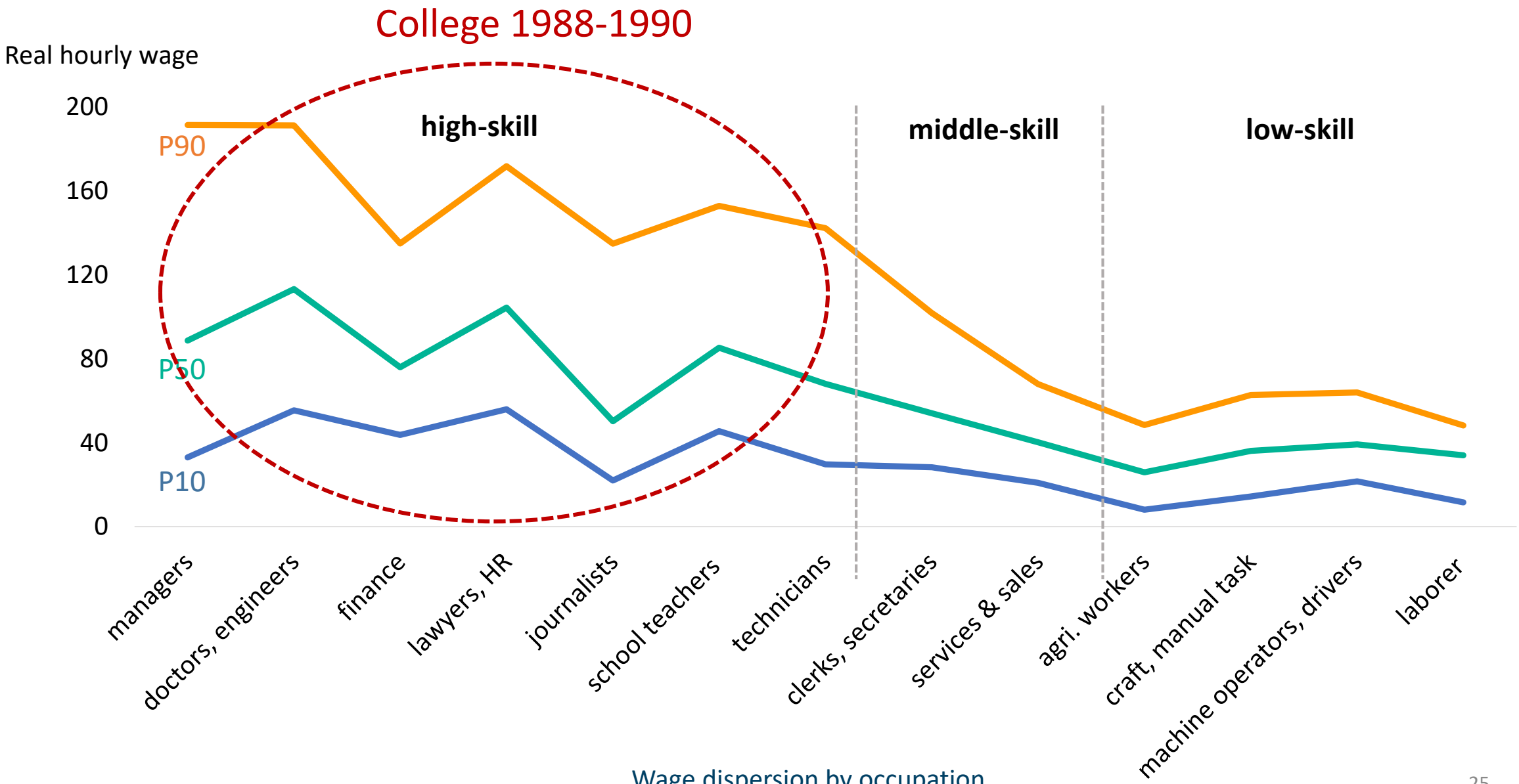
- higher earnings?

Wage dispersion by occupation

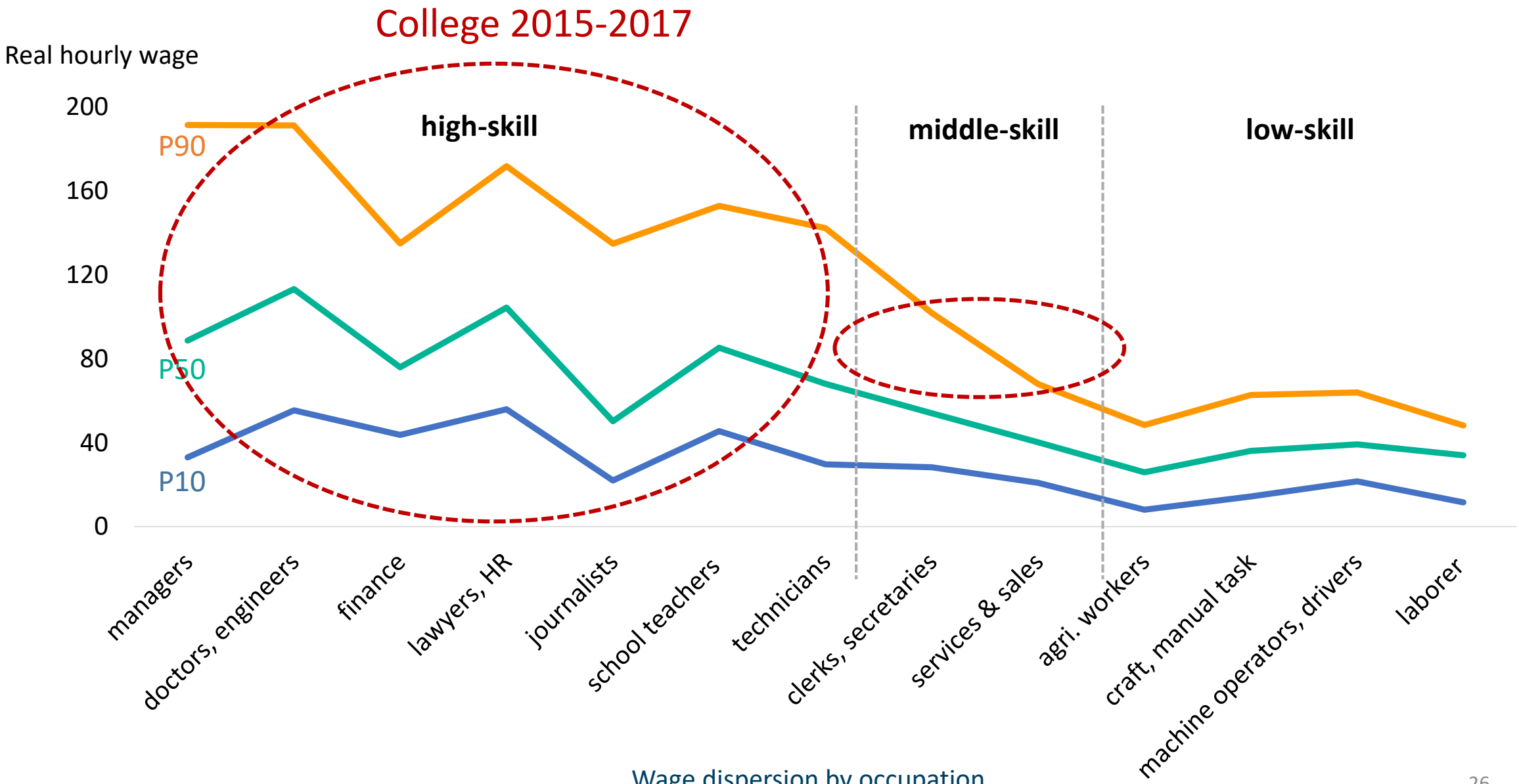


1988-1990: college concentrated in high-skill high-paid jobs



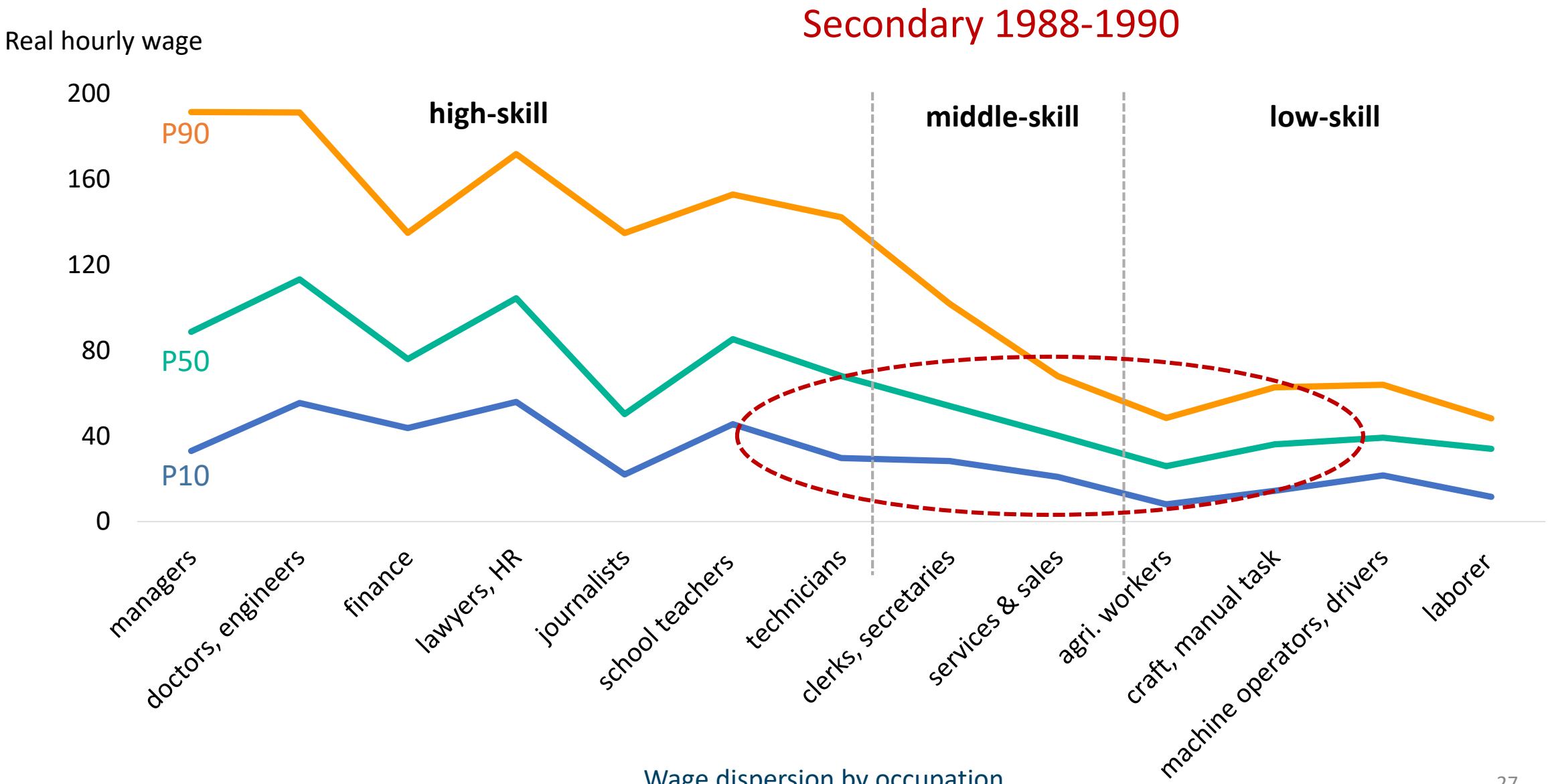
Wage dispersion by occupation

2015-2017: some college worked in middle-skill jobs, which paid less



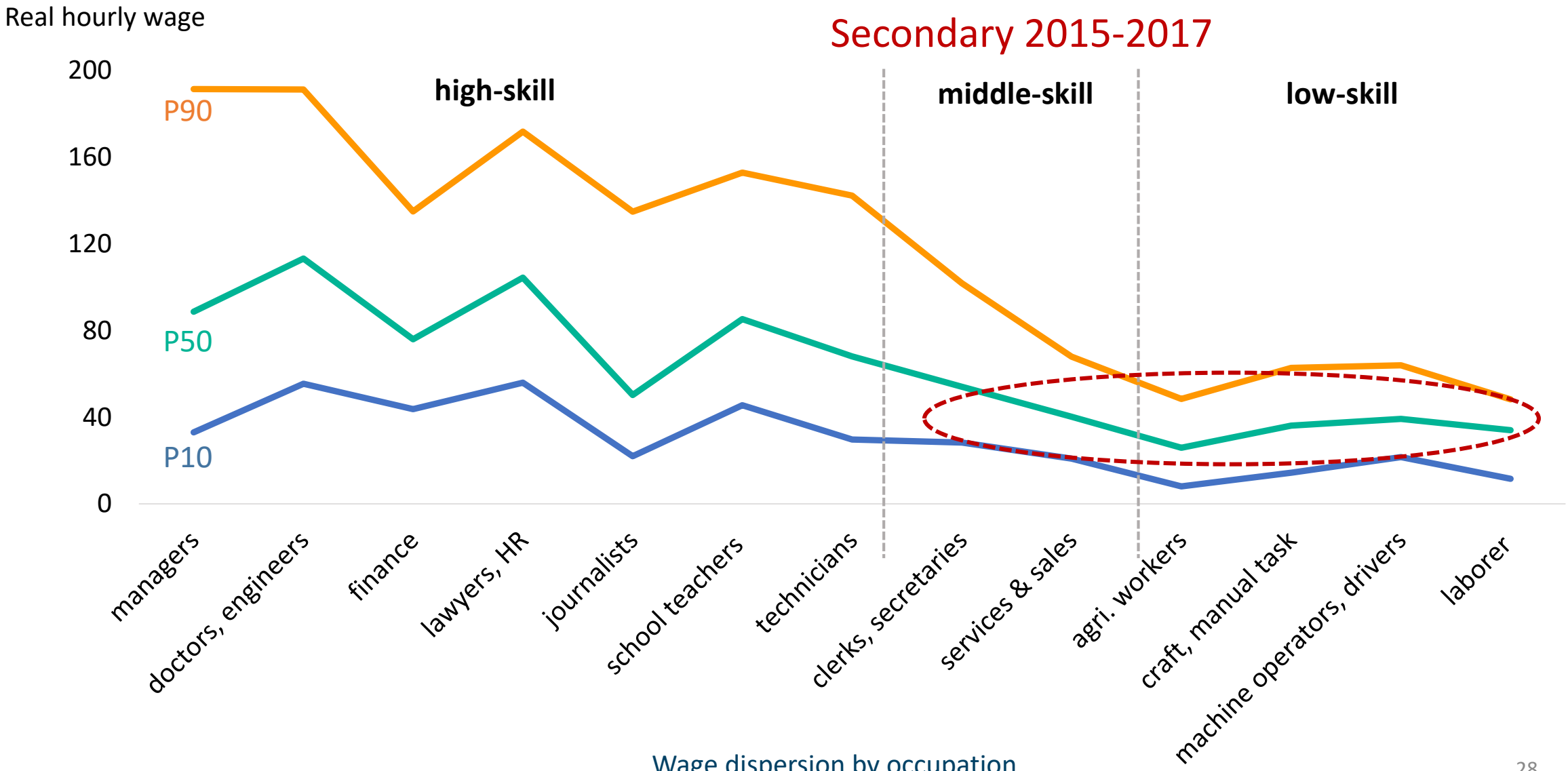
Wage dispersion by occupation

1988-1990: 38% of secondary worked in low-skill jobs



Wage dispersion by occupation

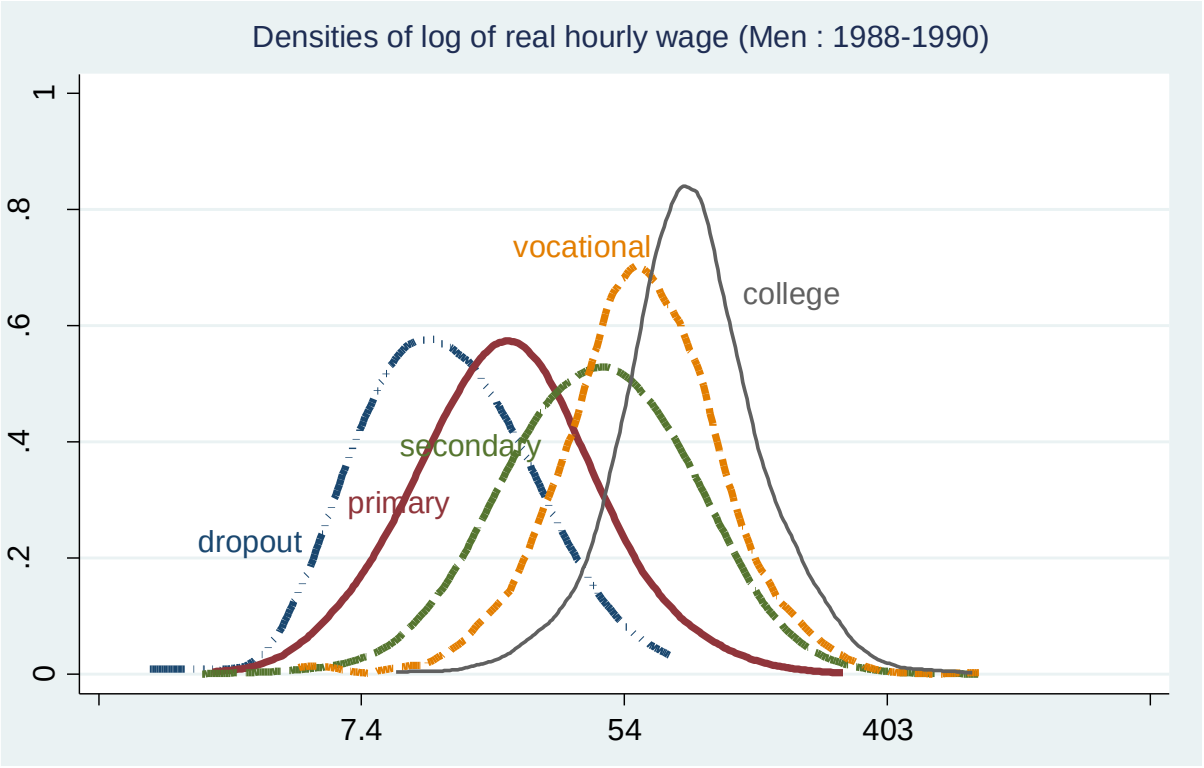
1988-1990: 38%
2015-2017: 67%
} **of secondary worked in low-skill jobs**



Wage dispersion by occupation

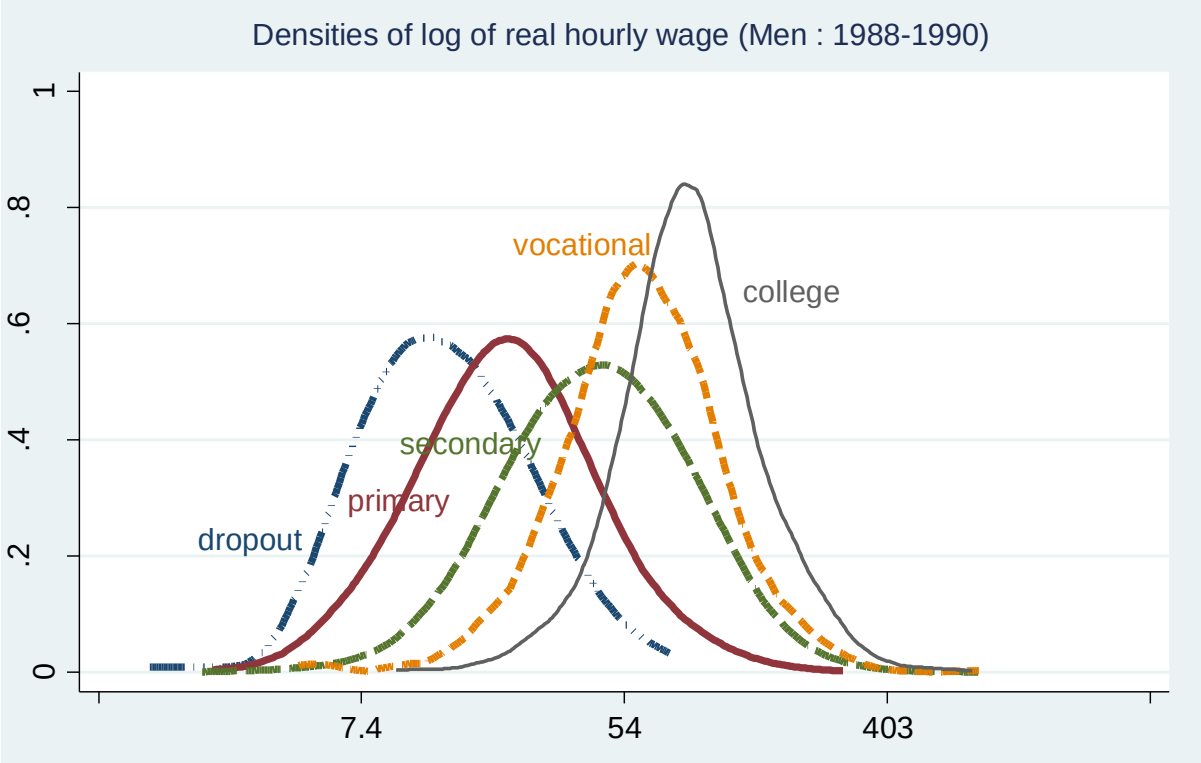
1988-1990: higher education led to higher average wage

1988-1990

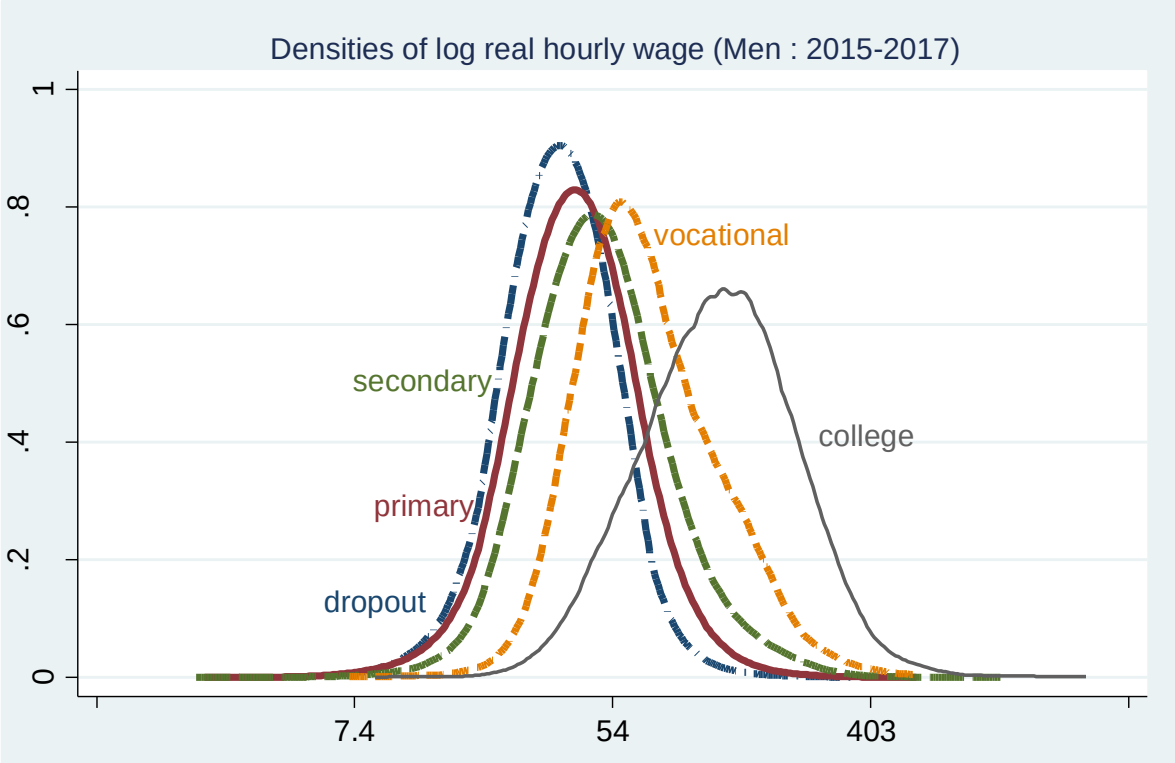


2015-2017: wage densities of secondary, primary or lower groups became similar some college workers did not earn high wage

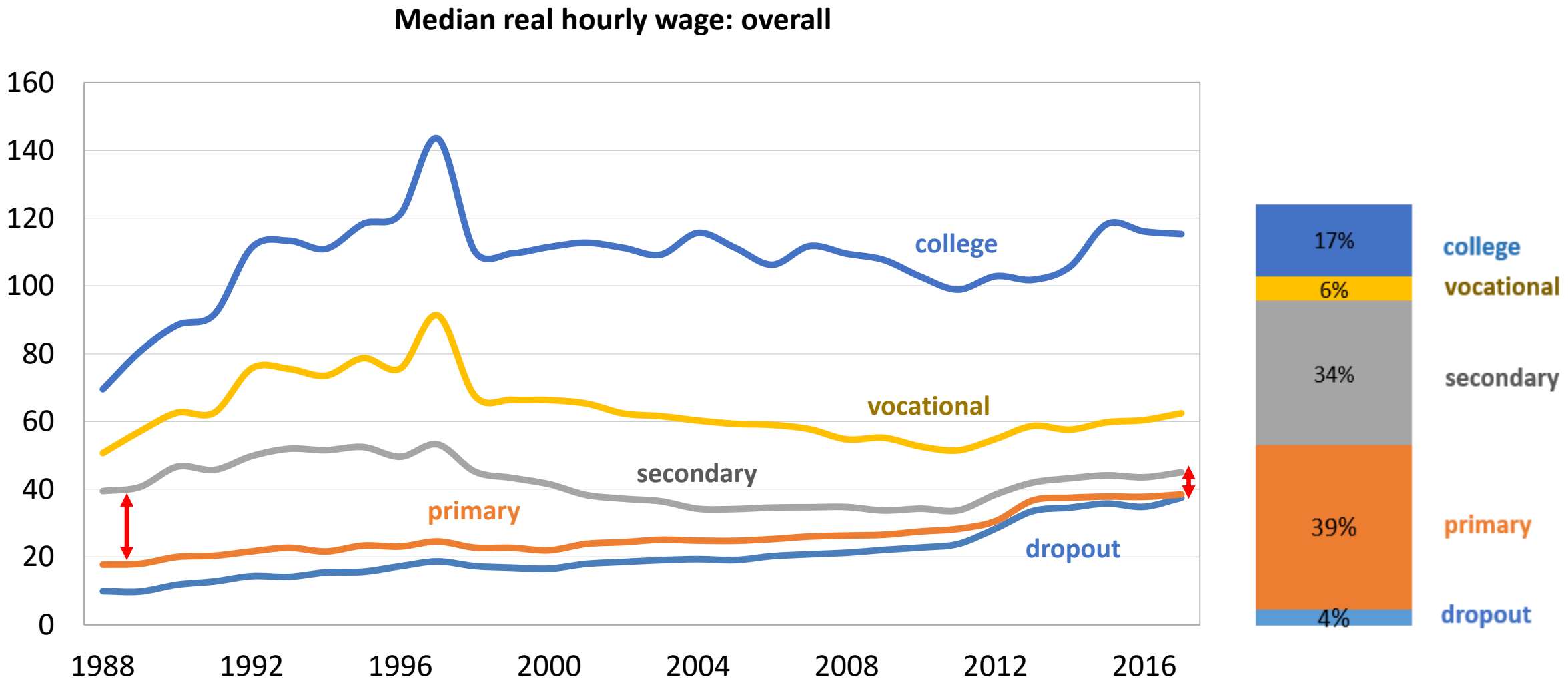
1988-1990



2015-2017



- Secondary group were relatively worse off
- College workers left other groups behind



LFS : education , jobs, earnings are intertwined…

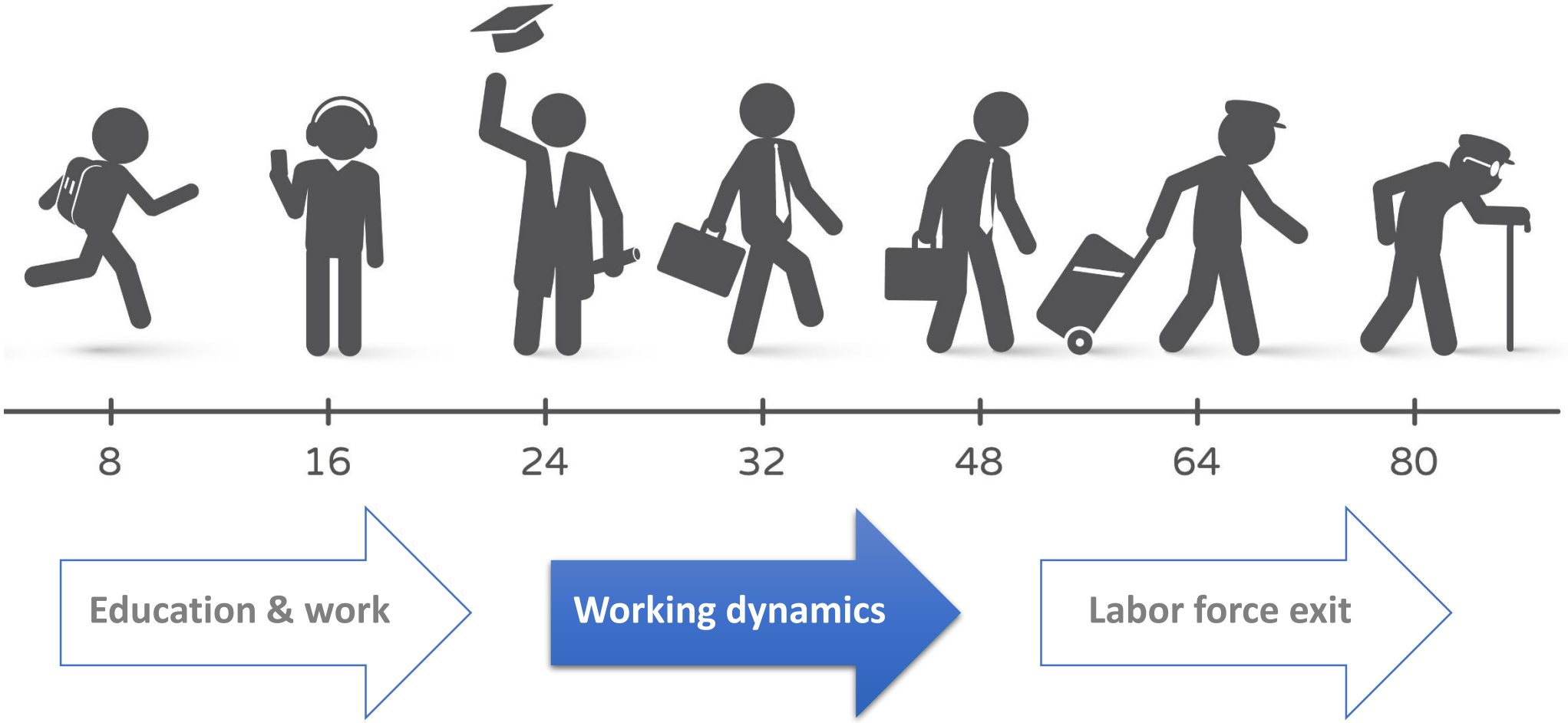
but …

how many jobs each worker has over his/her working life?

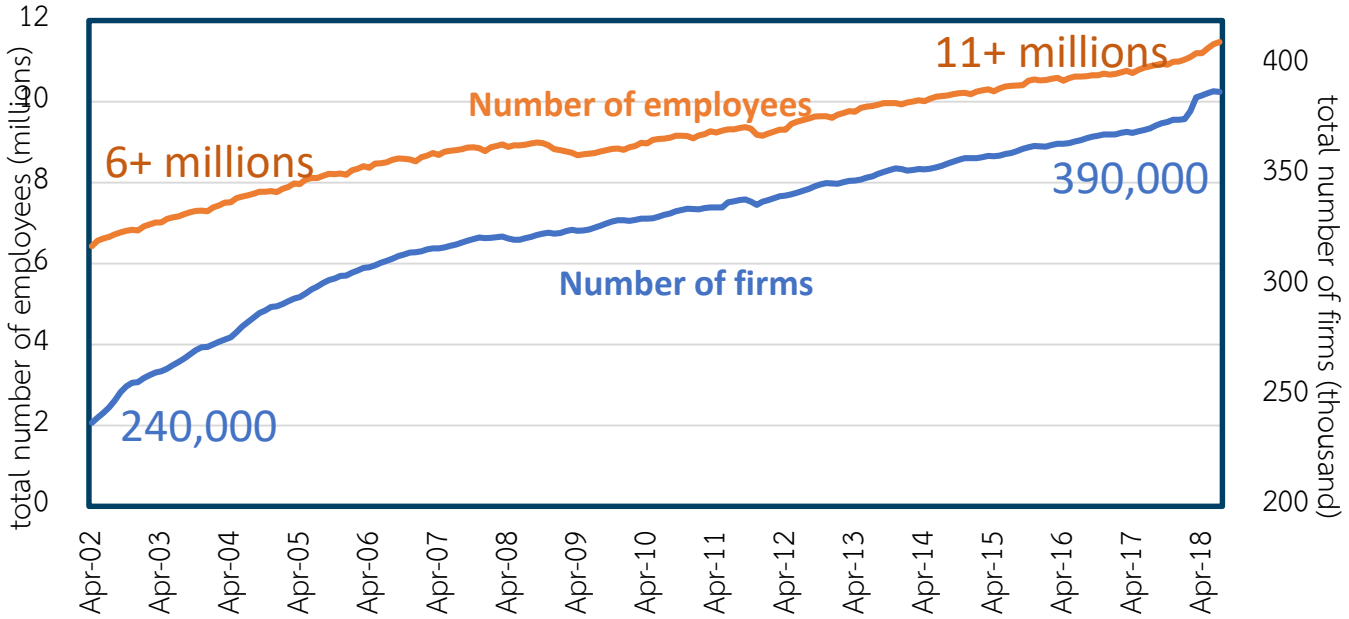
how many months each worker works in a year?

SSO data can help complete the picture.

The Workers' Journey



The SSO Data



Monthly

- follow the same individual
- follow the same firm

Observe

age, gender, wage

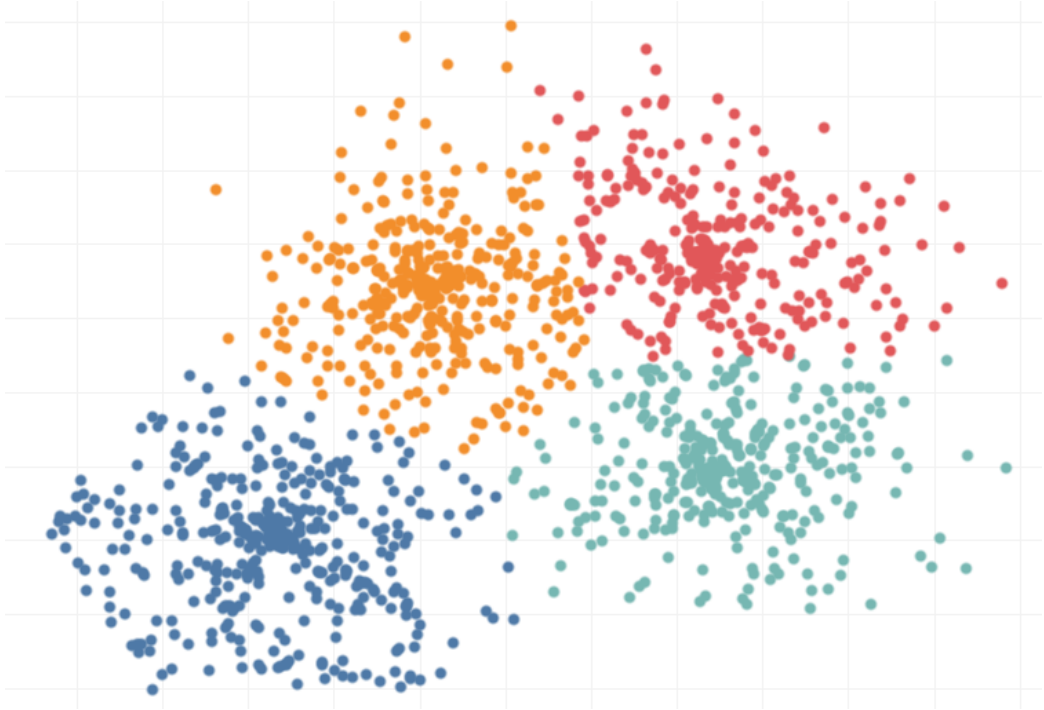
Do not observe

edu, occupation, industry

Following each employee for a long period

Sample = employees (aged 15-44 in 2002) x 96 months

Use clustering technique to group
each employee's employment information



Characteristics
1) No. of jobs
2) Job tenure
3) No. of unemployment
4) Length of unemployment
5) Total length observed
6) No. of times exiting and returning to the same firm

ML technique suggested the number of optimal clusters = 4

Characteristics
1) No. of jobs
2) Job tenure
3) No. of unemployment
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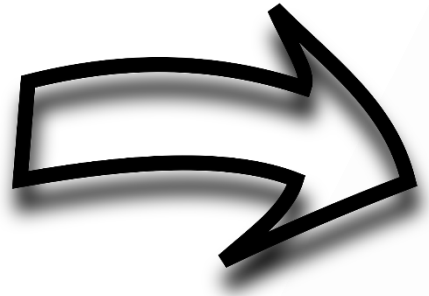
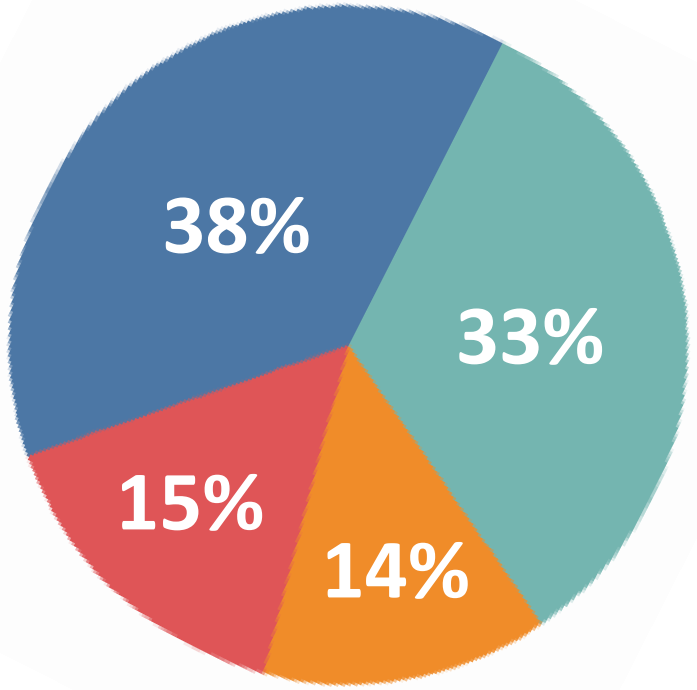
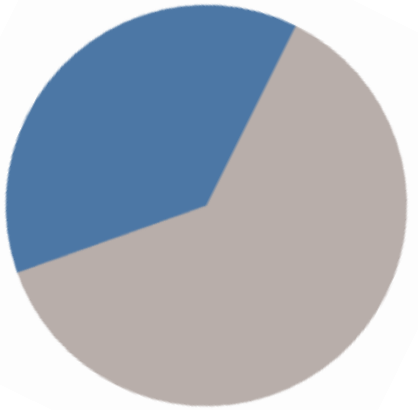




Let’s meet the first group

	2002	2003	2004	2005	2006	2007	2008	2009
	Job A	Job A	Job A	Job A	Job A	Job A	Job A	Job A
	Job A	Job A	Job A	Job A	Job A	Job B	Job B	Job B

38%



Stable jobs, may have 2+ jobs but always in SS

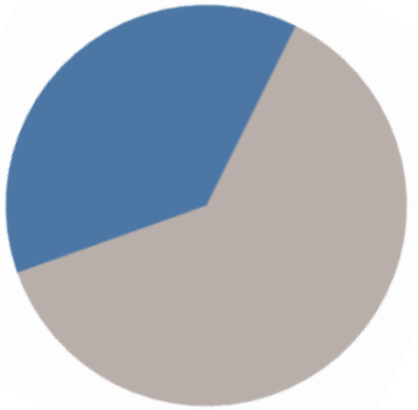
Let's meet the first group

	2002	2003	2004	2005	2006	2007	2008	2009
	Job A	Job A	Job A	Job A	Job A	Job A	Job A	Job A
	Job A	Job A	Job A	Job A	Job A	Job B	Job B	Job B

"Stayers"

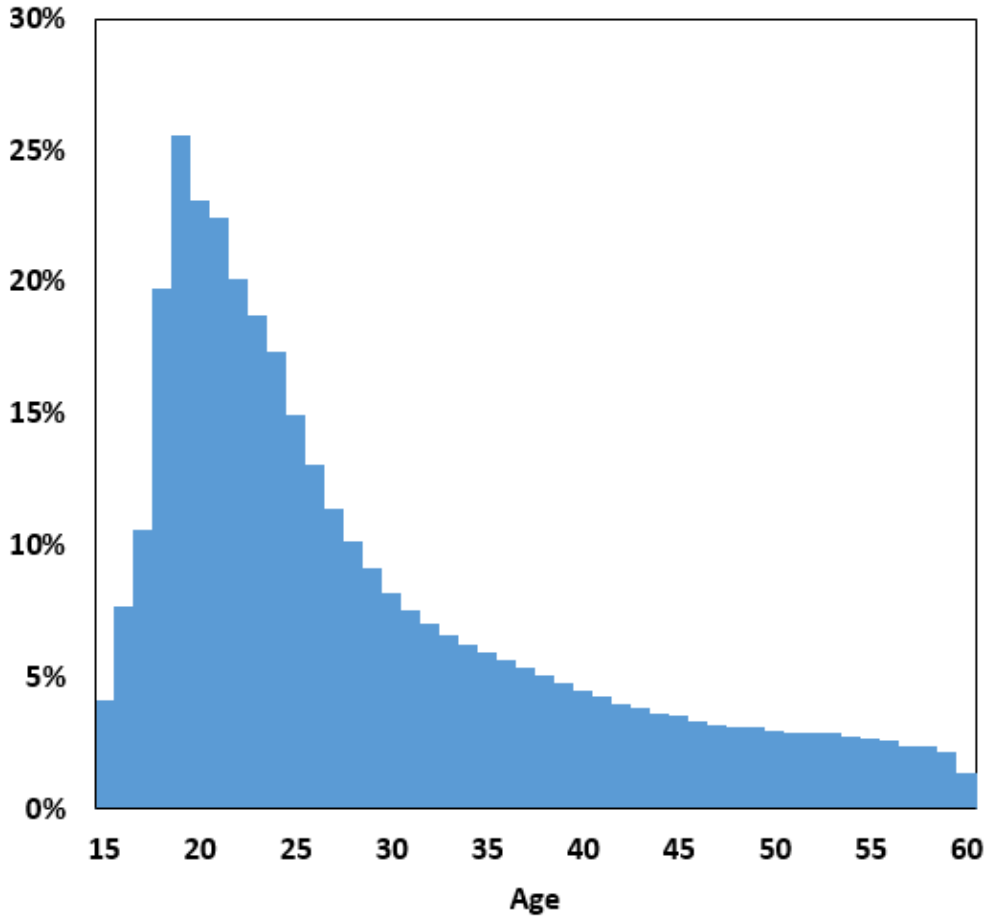
38%

Stable jobs, may have 2+ jobs but always in SS



Job switching rates peak at early 20s, then decline with age

Job switching rates (Stayers)



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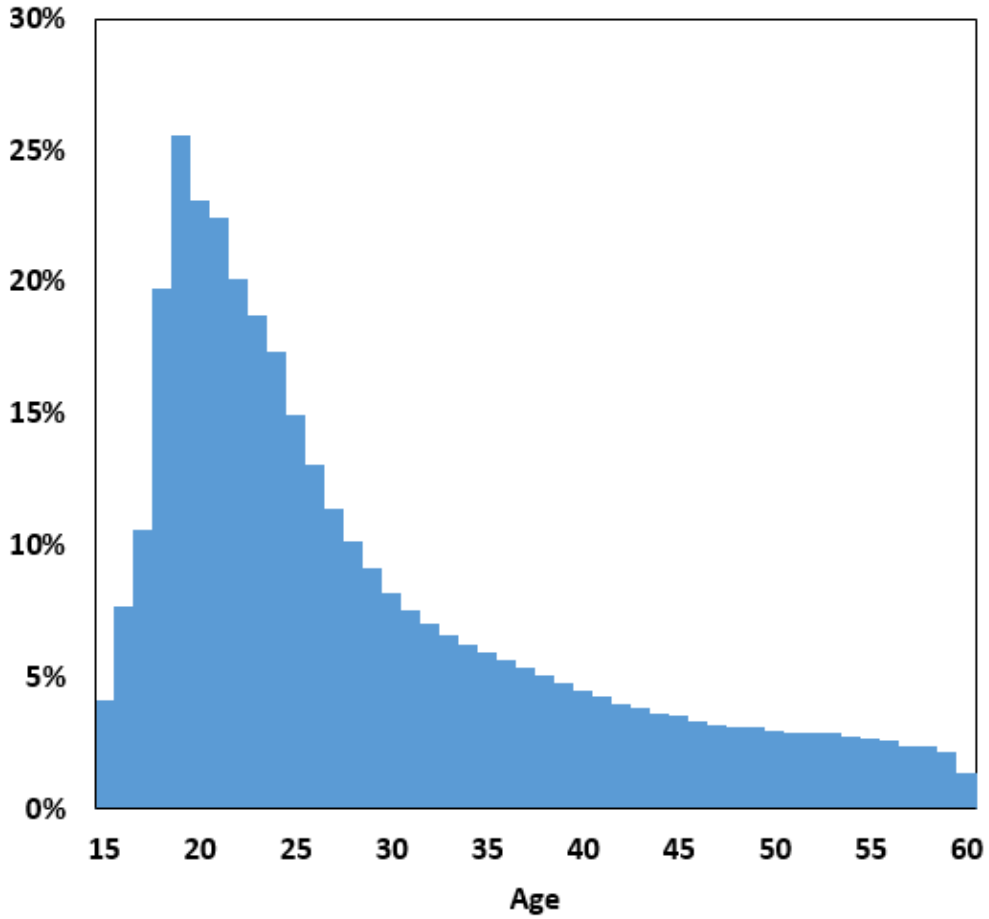


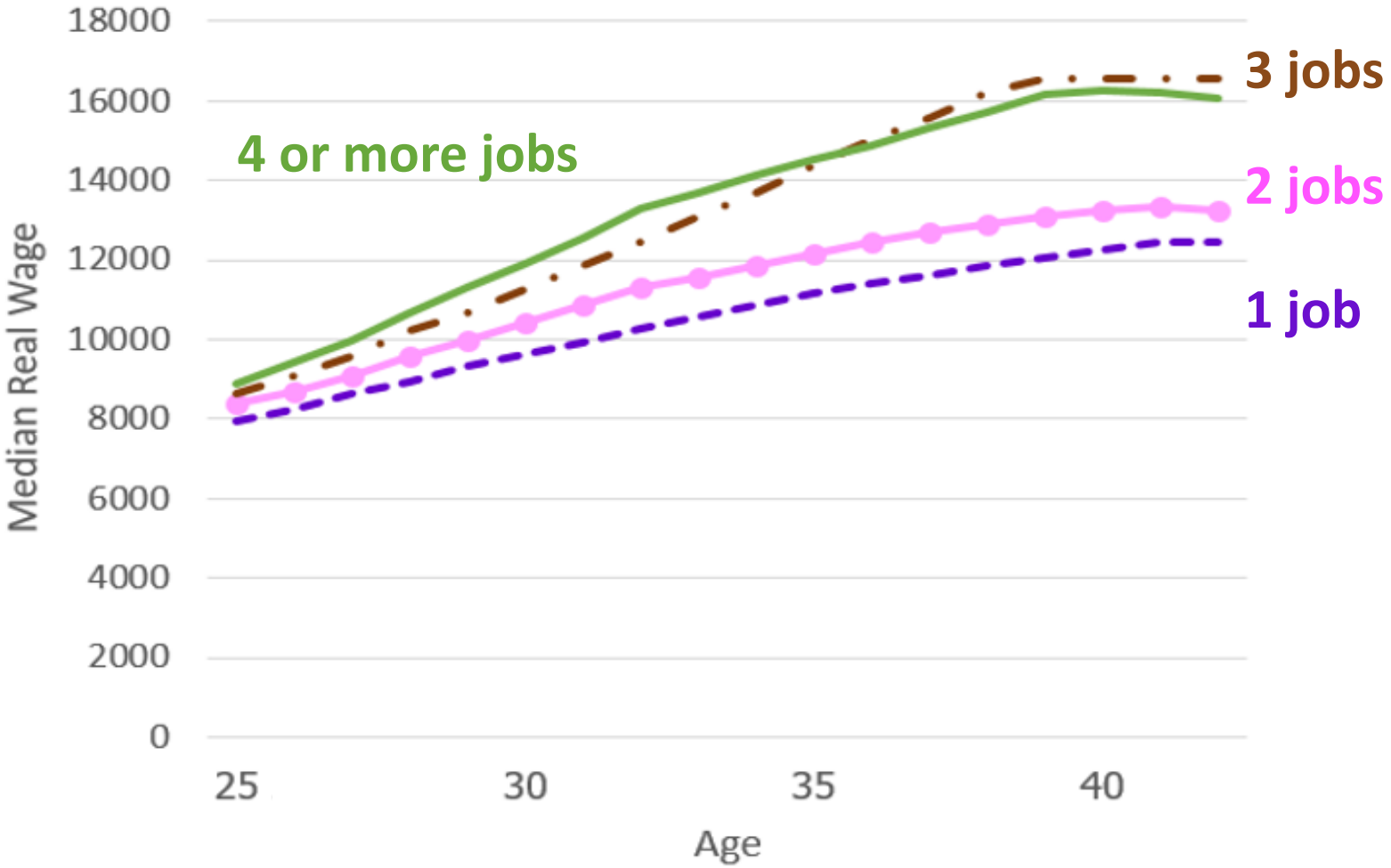
Shares of online job ads targeting applicants' age

Age targeted	Share
Any age	25%
Age 15-29	68%
Age 30 or over	7%

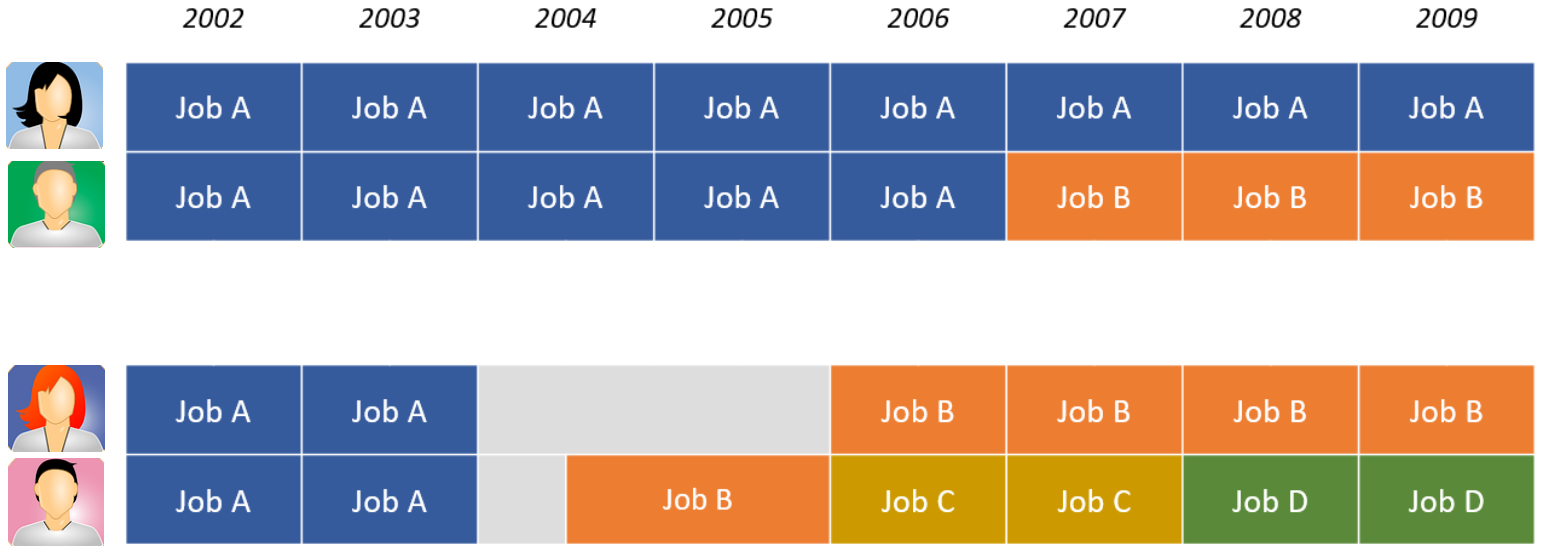
Source: Lekfuangfu et al. (2016)

Switching jobs leads to higher wages (better job matches)

Median wages by ages and the number of jobs over 8 years (Stayers)



The 4 Work Patterns

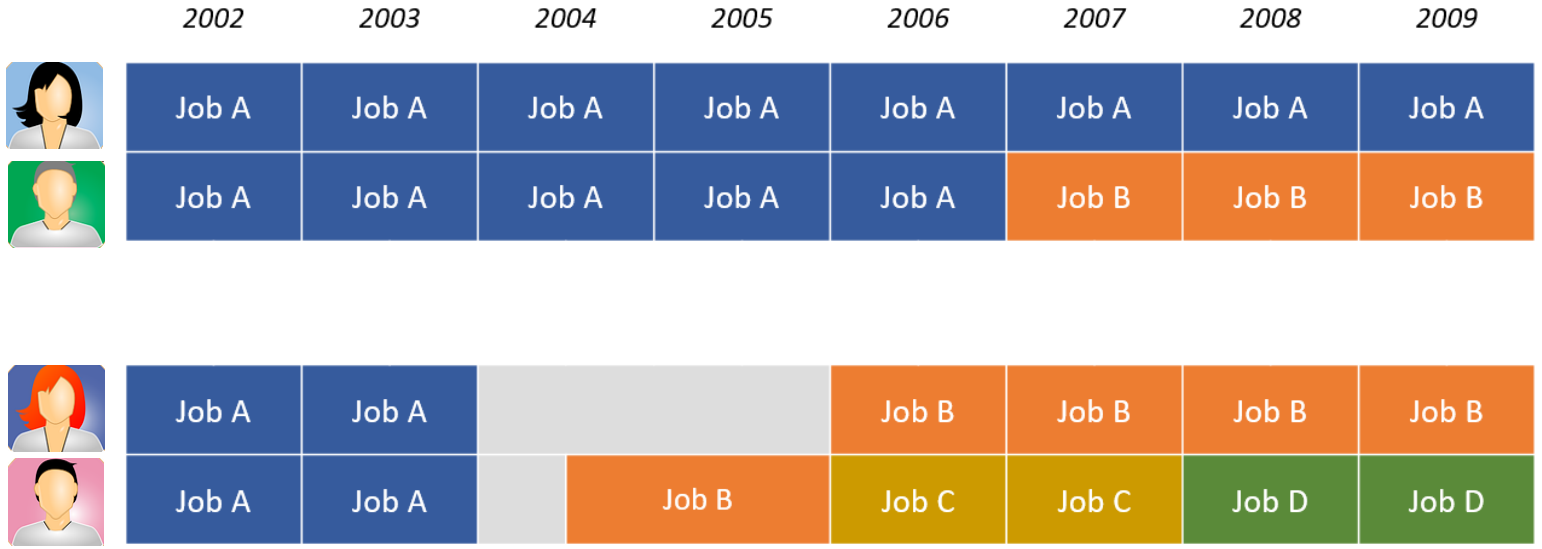


"Stayers"
38%

Stable jobs, may have 2+ jobs but always in SS

33%

The 4 Work Patterns

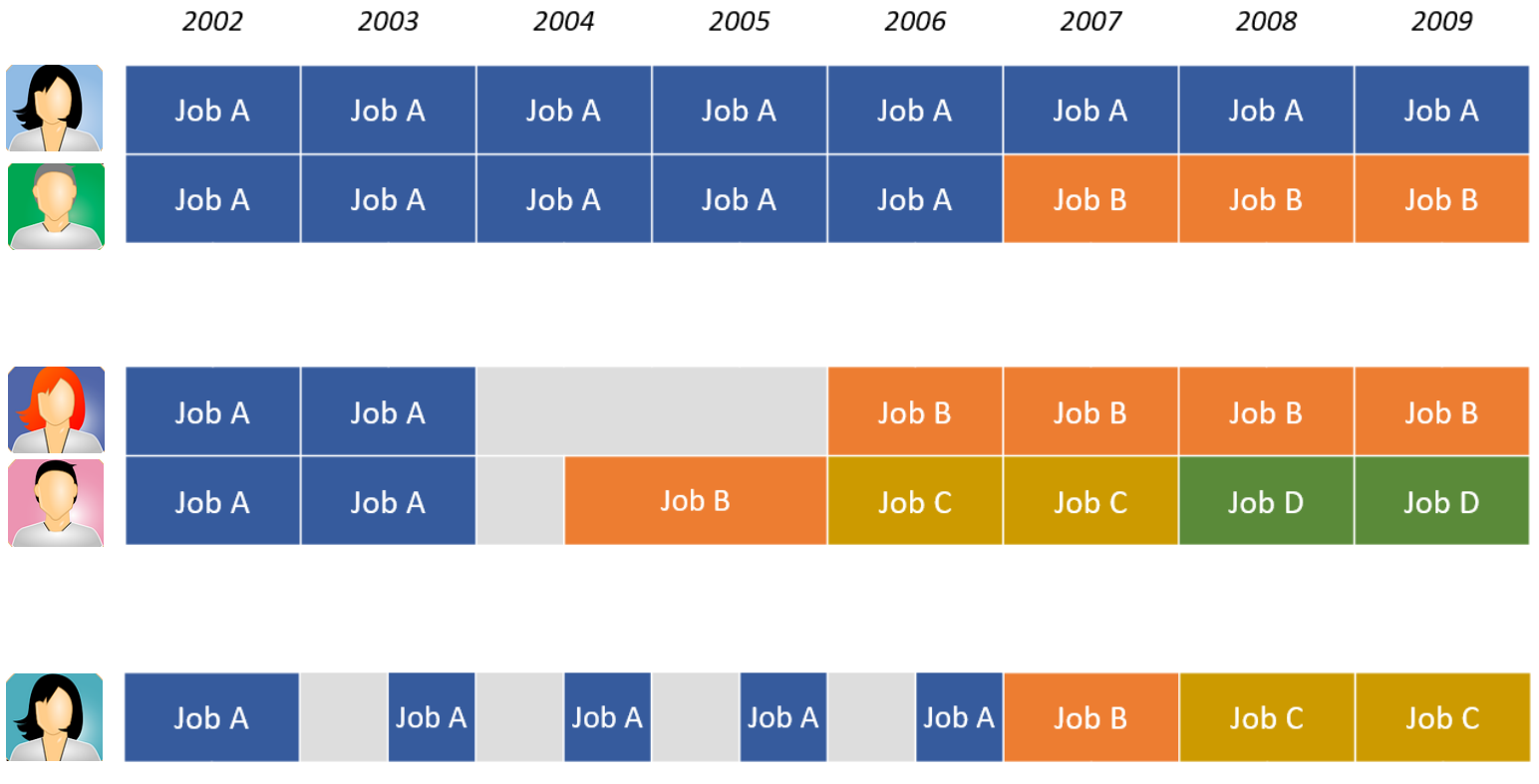


"Stayers"
38%

Stable jobs, may have 2+ jobs but always in SS

"Movers"
33%

The 4 Work Patterns



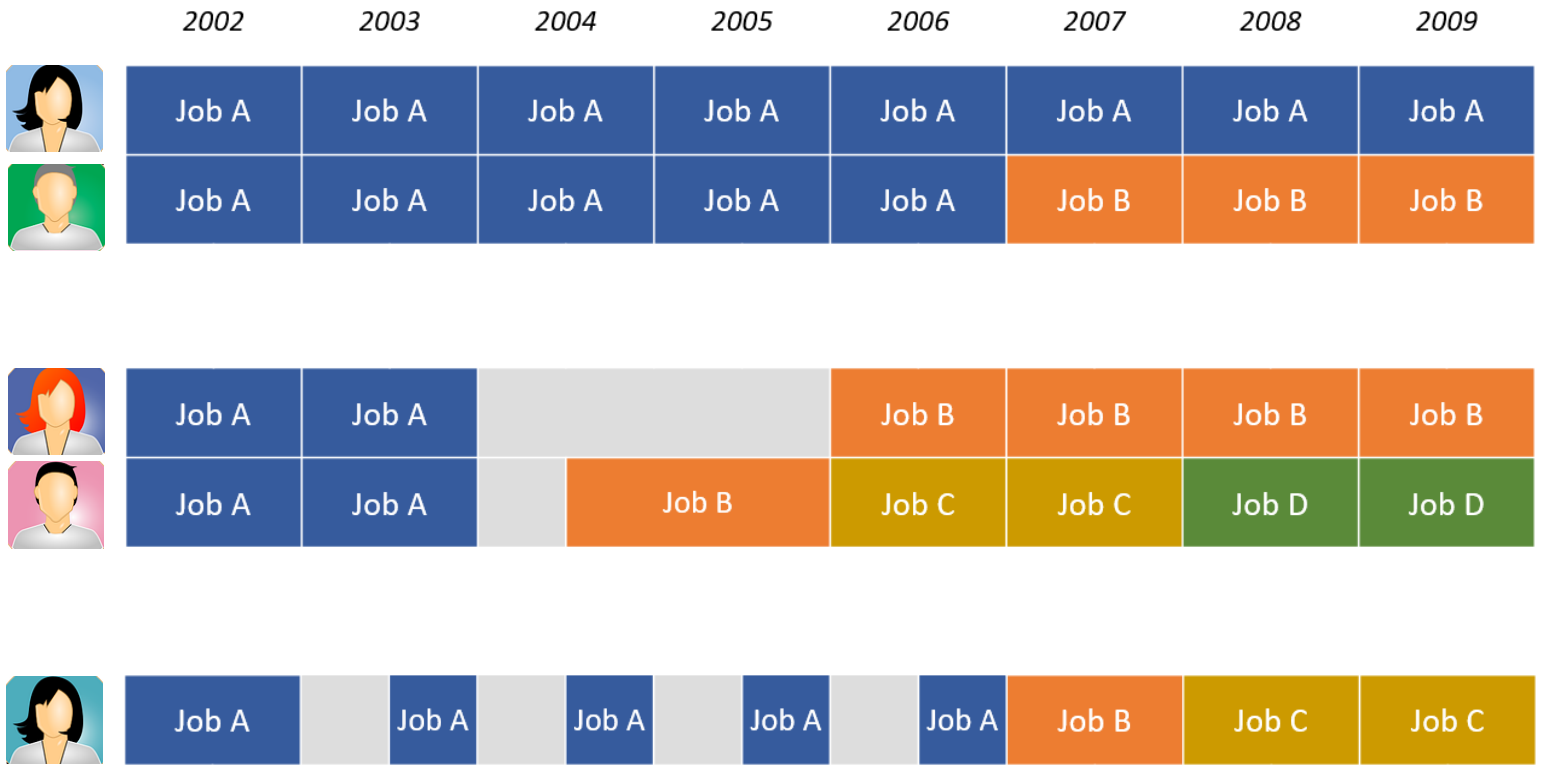
"Stayers"
38%

Stable jobs,
may have 2+ jobs
but always in SS

"Movers"
33%

14%

The 4 Work Patterns



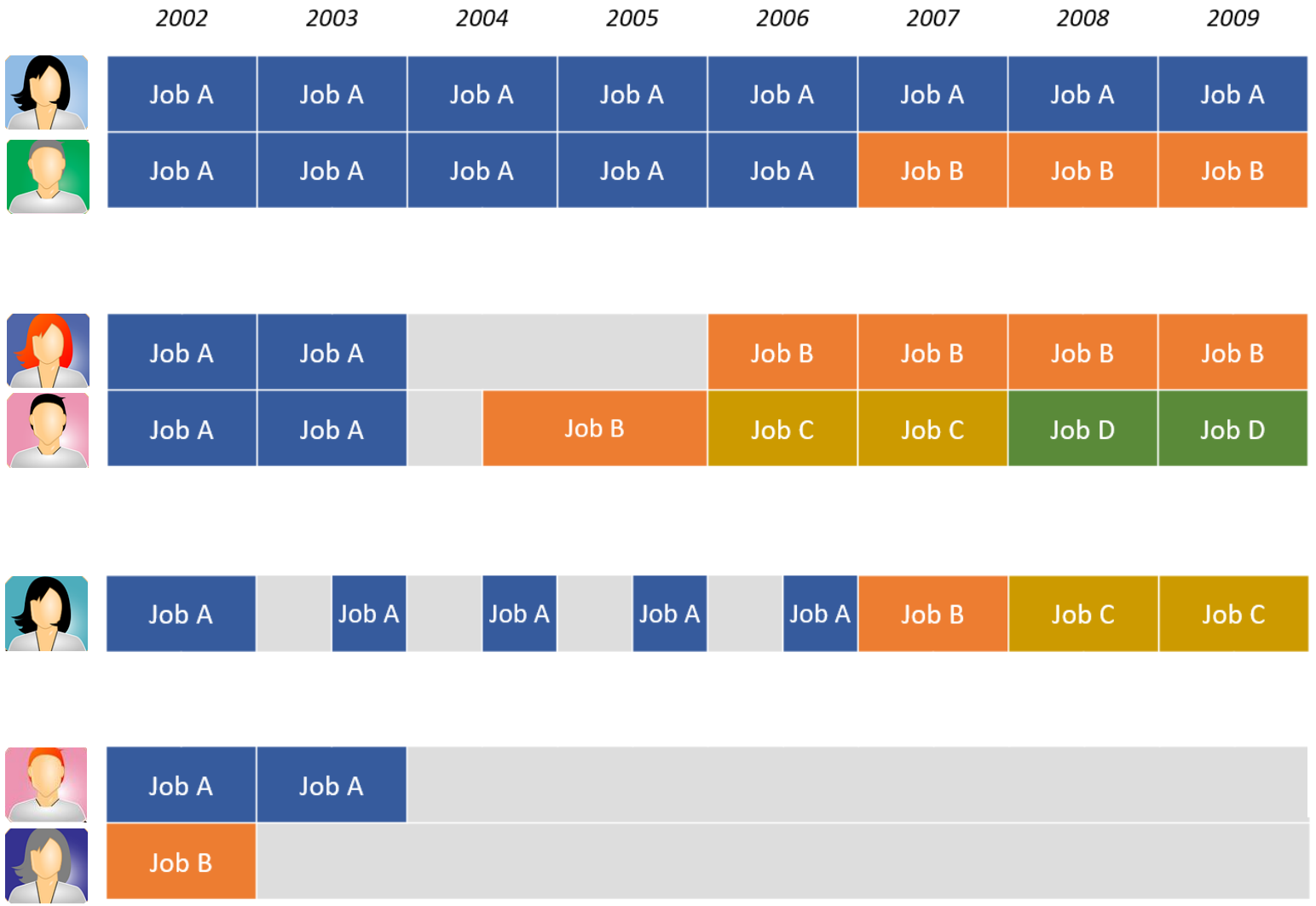
"Stayers"
38%

Stable jobs, may have 2+ jobs but always in SS

"Movers"
33%

"Seasonal"
14%

The 4 Work Patterns



"Stayers"
38%

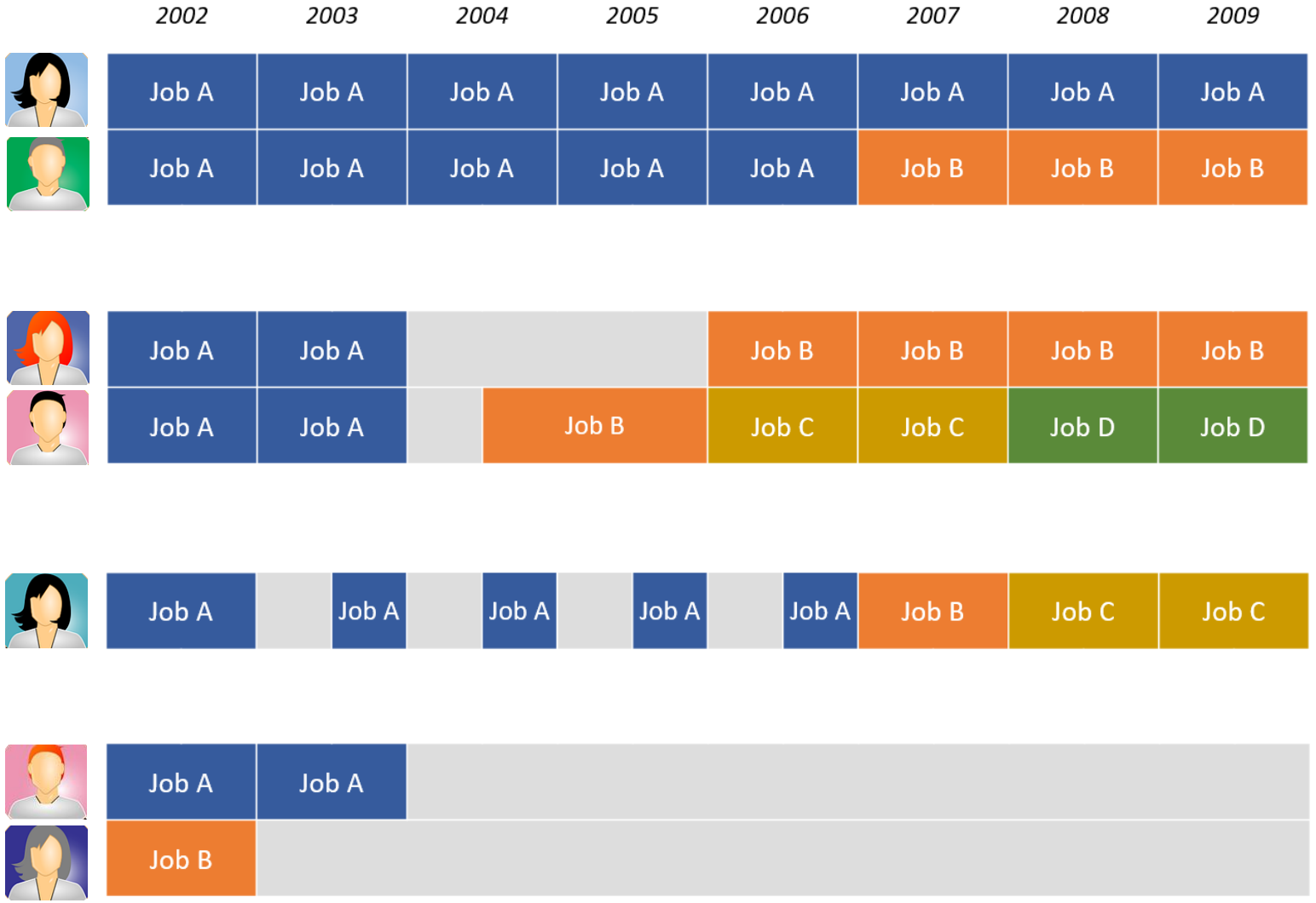
Stable jobs, may have 2+ jobs but always in SS

"Movers"
33%

"Seasonal"
14%

15%

The 4 Work Patterns



"Stayers"
38%

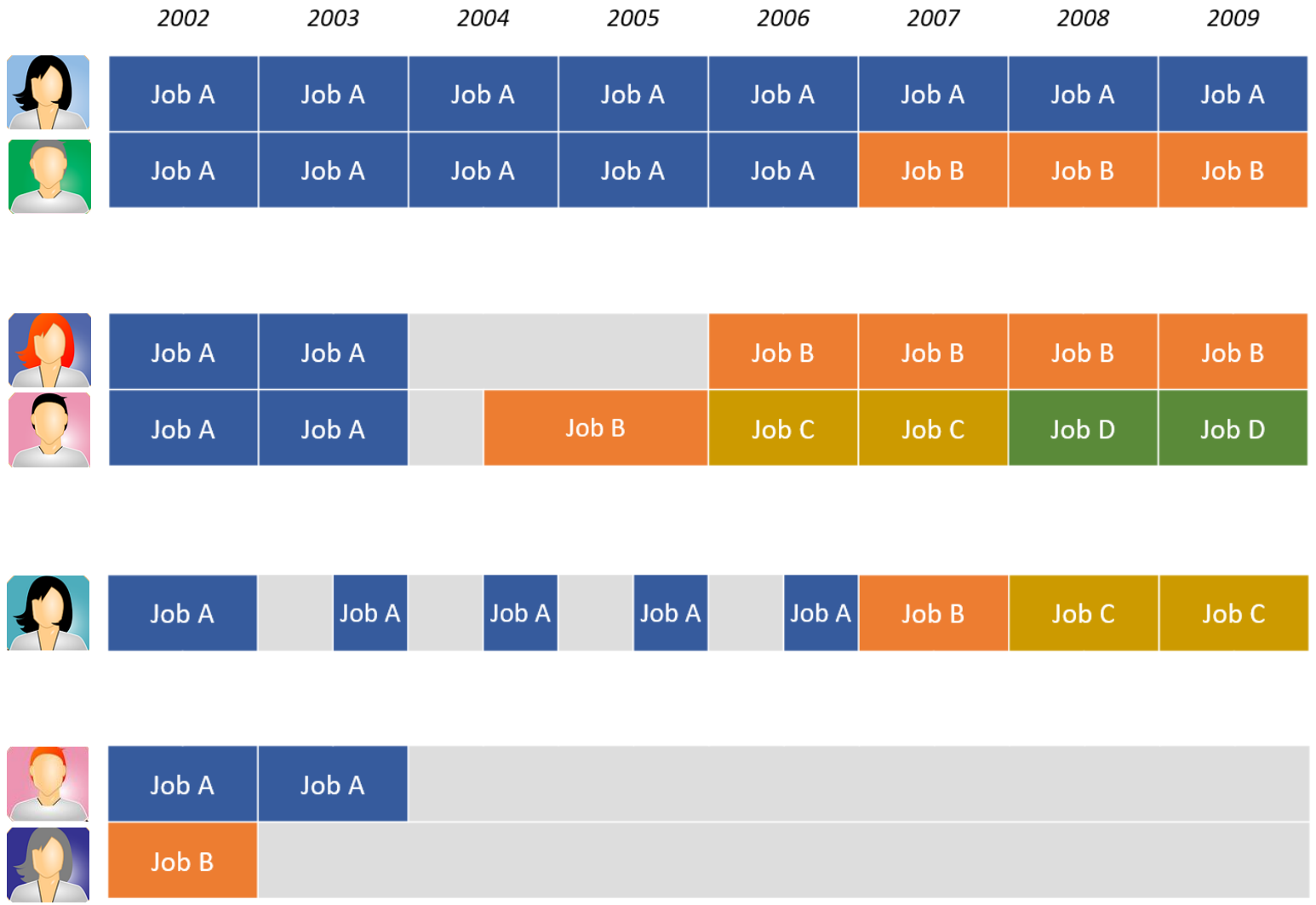
Stable jobs, may have 2+ jobs but always in SS

"Movers"
33%

"Seasonal"
14%

"Shortly Observed"
15%

The 4 Work Patterns



"Stayers"
38%

Stable jobs, may have 2+ jobs but always in SS

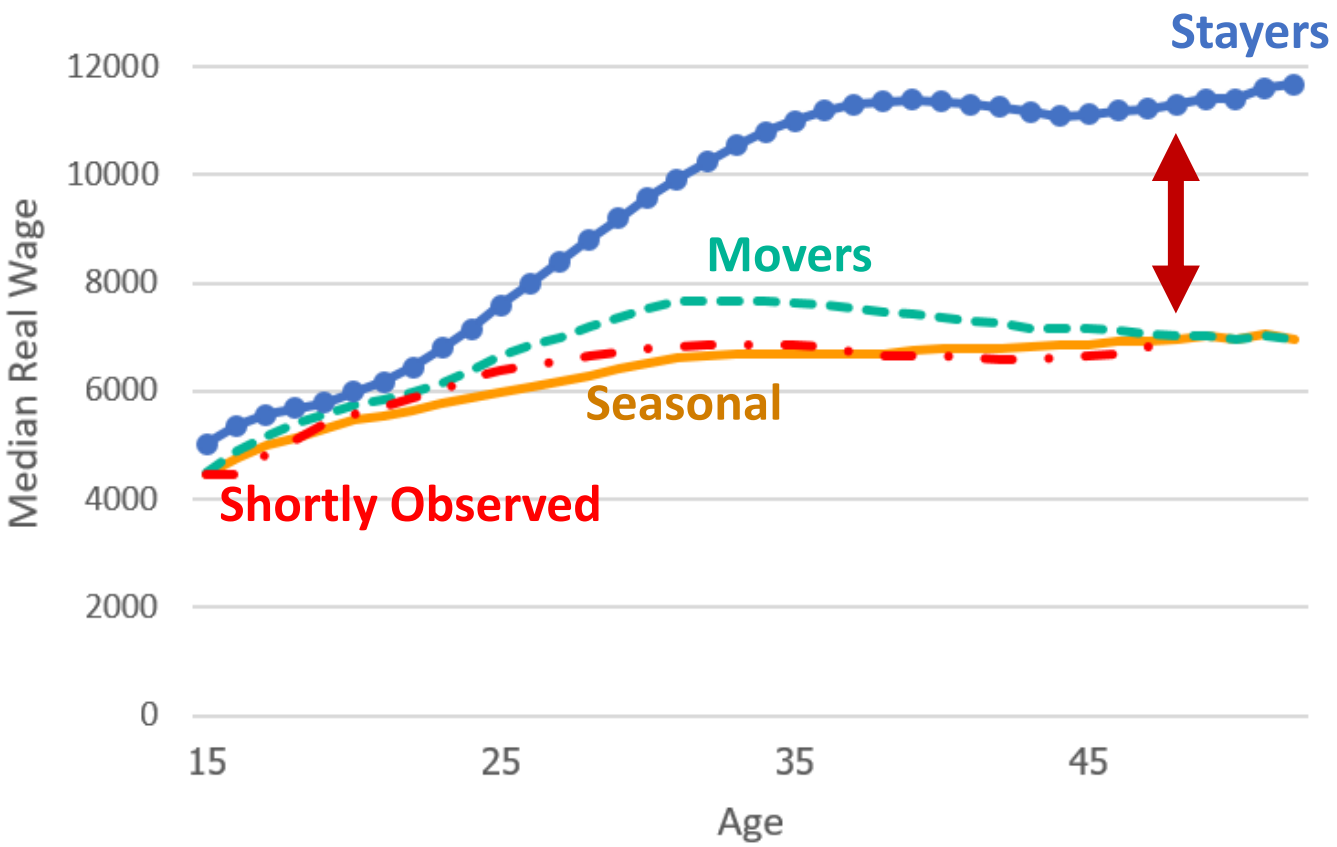
"Movers"
33%

"Seasonal"
14%

"Shortly Observed"
15%

Hybrid between formal & informal sectors

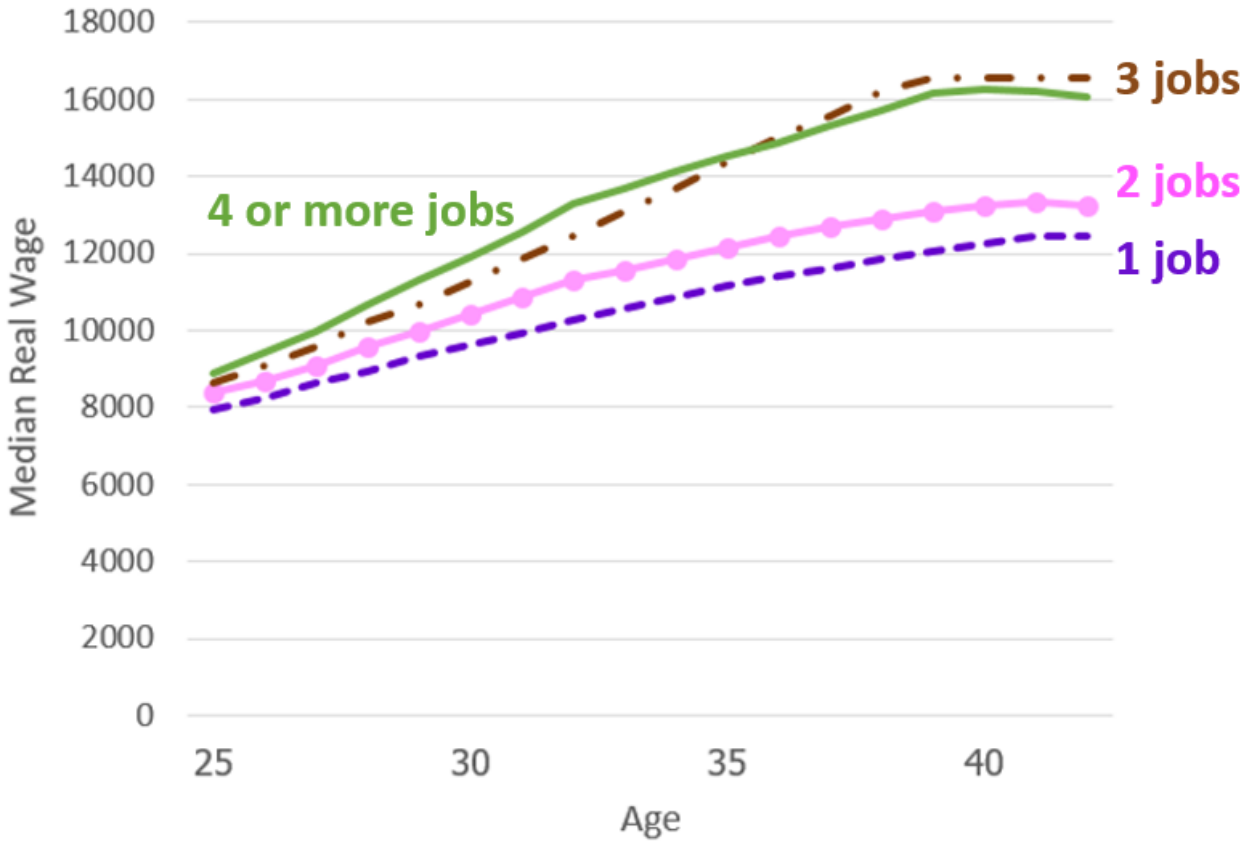
Stayers (fully formal) always have higher wage; the gap increases with age



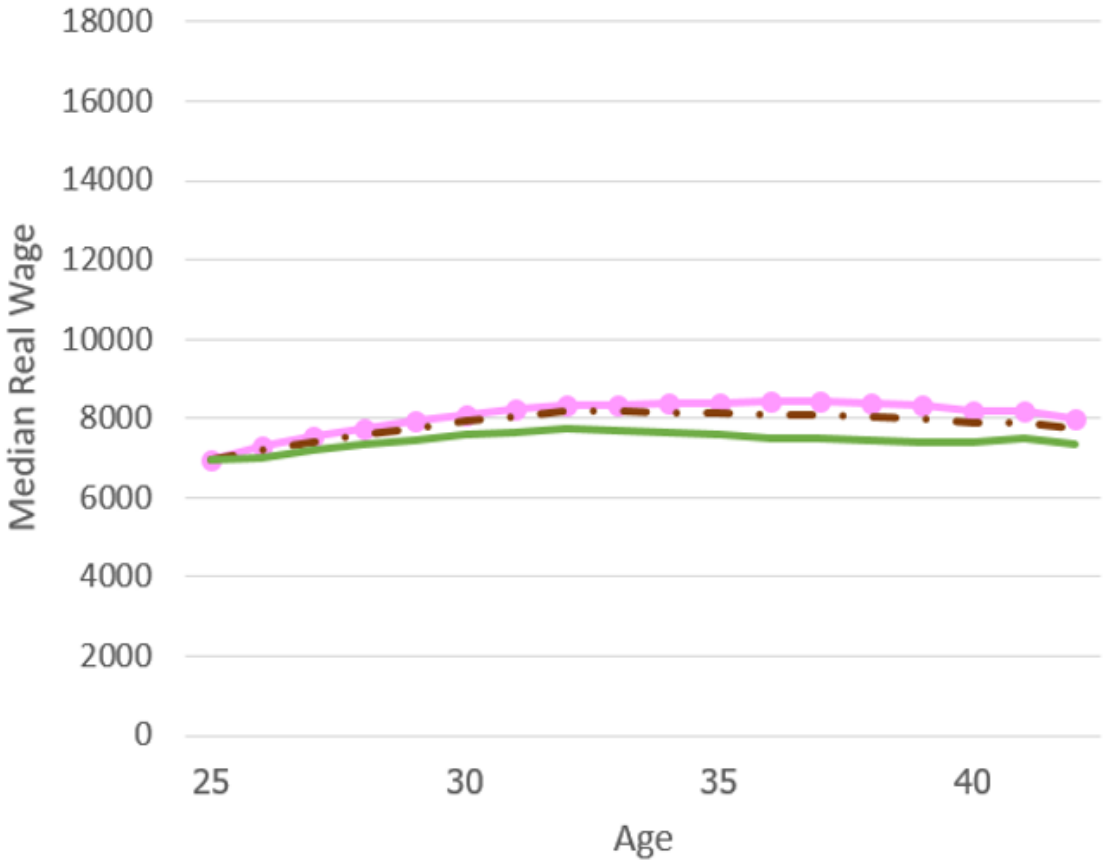
Stable jobs,
may have 2+ jobs
but always in SS

Switching jobs leads to higher wages only for stayers, not others

Stayers (fully formal)

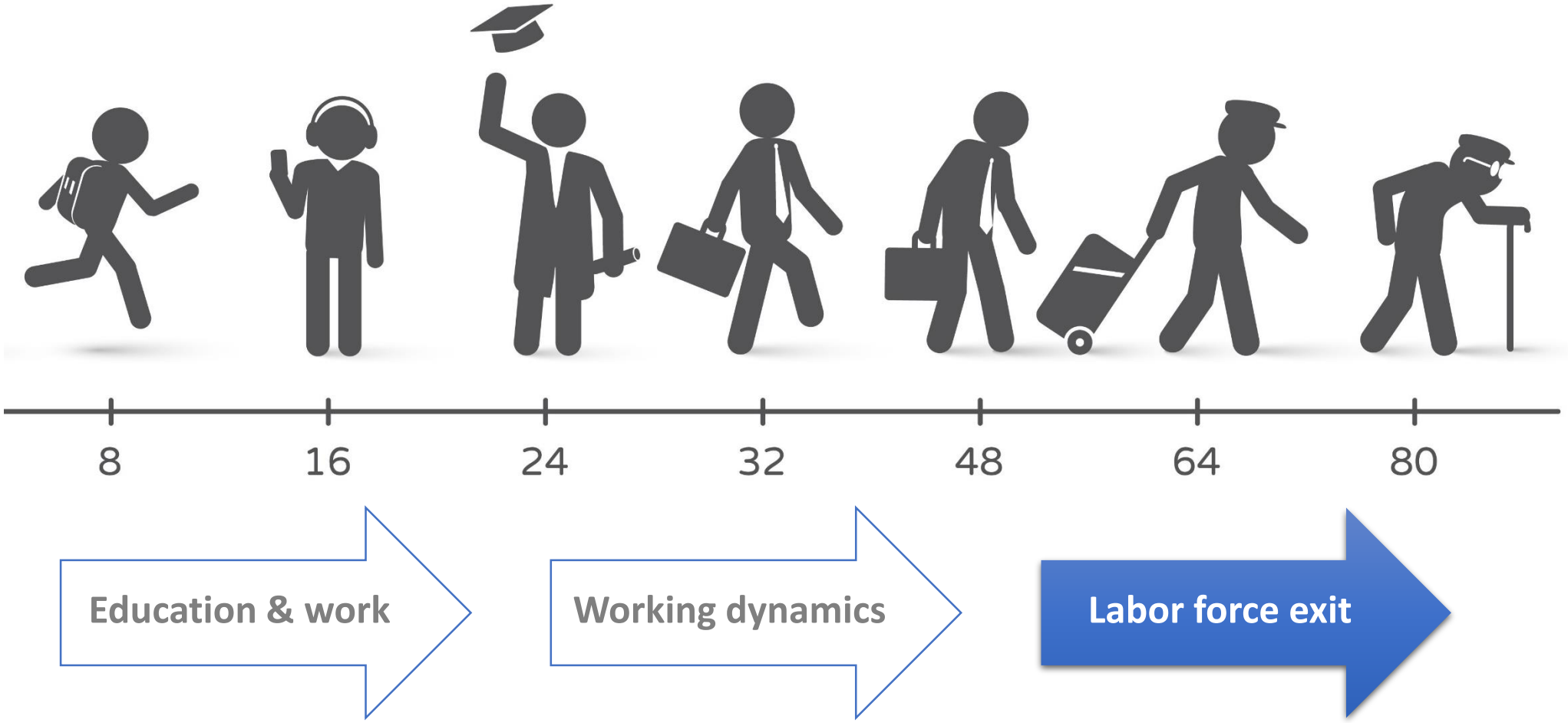


Movers (hybrid formal & informal)



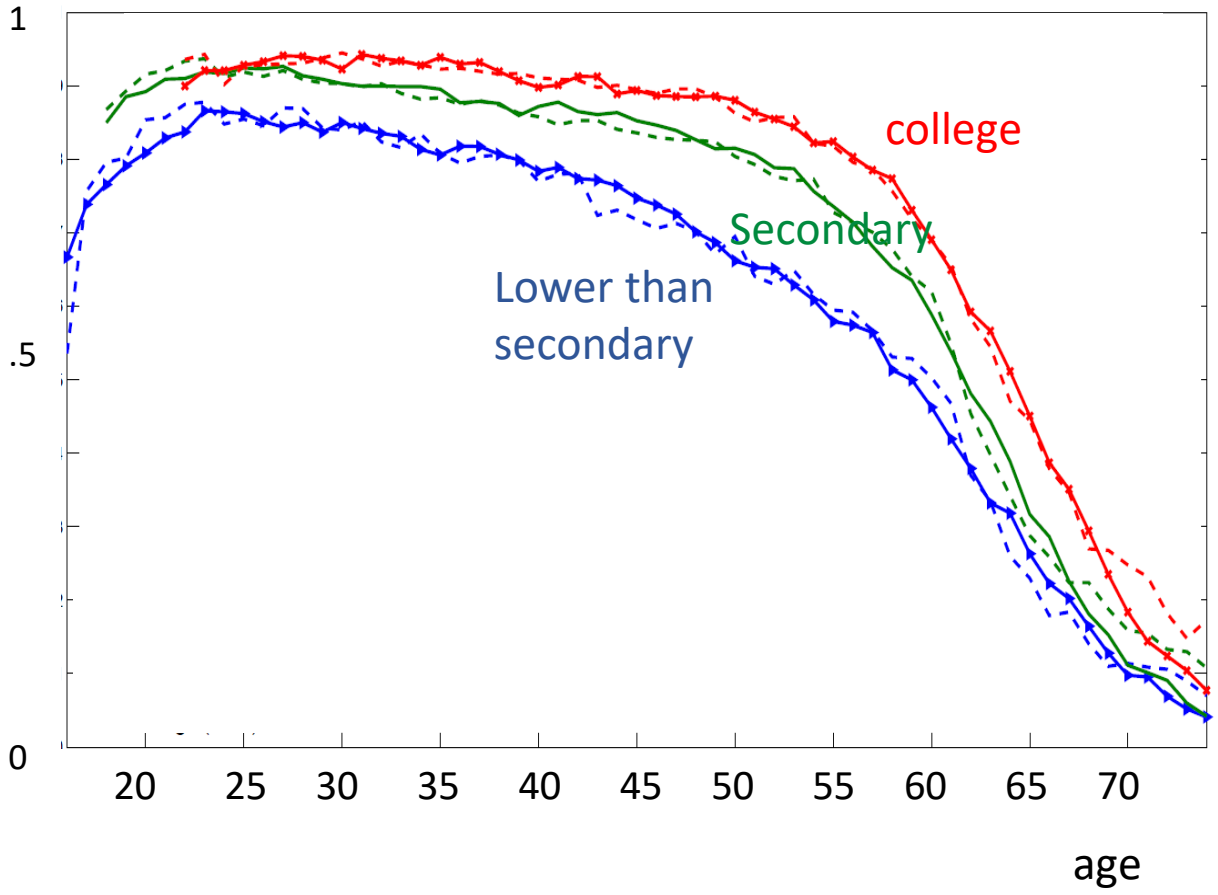
Concern #2 : Majority of workers are left behind

The Workers' Journey



In many countries, higher-educated (more productive) workers retire later.

labor force participation over life-cycle
US men



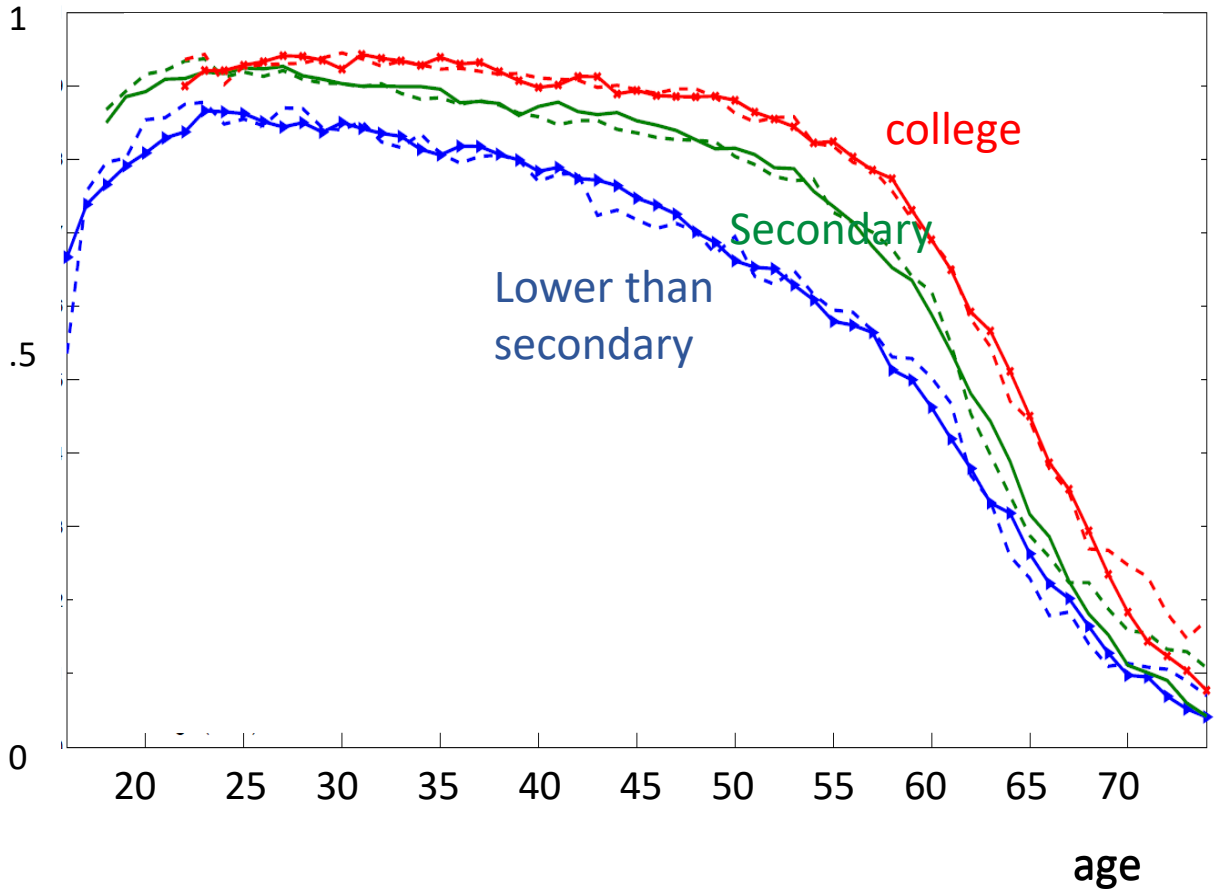
Source: Keane & Wasi (2016)

In many countries, higher-educated (more productive) workers retire later.

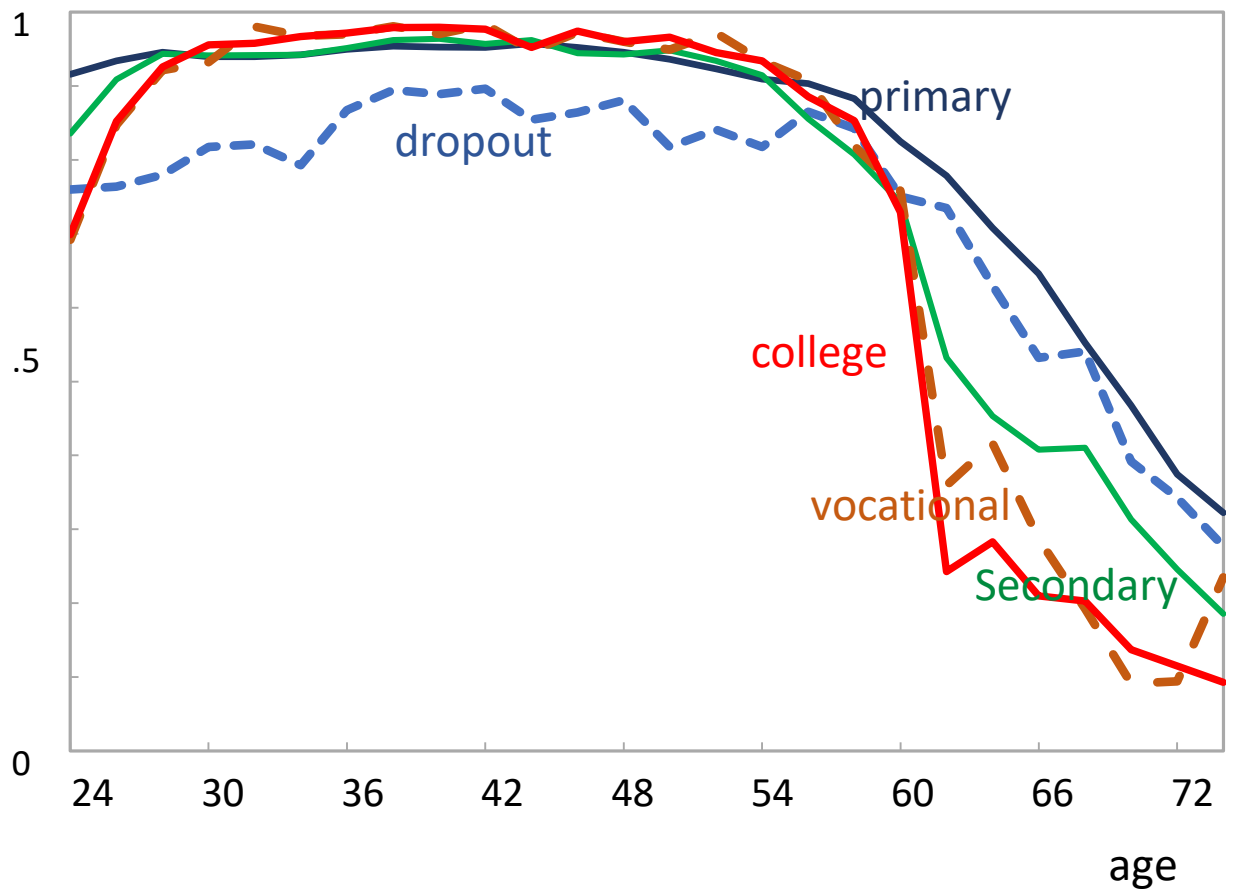
Thailand : college graduates sharply retire at 60.

labor force participation over life-cycle

US men



Thai men



Source: Keane & Wasi (2016)

Institutional factors

Mandatory retirement age (specified by gov. or firms) :

Thailand: gov workers 60 private sector : specified by firms normally 55-60

Illegal in most developed countries

Institutional factors

Mandatory retirement age (specified by gov. or firms) :

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Illegal in most developed countries

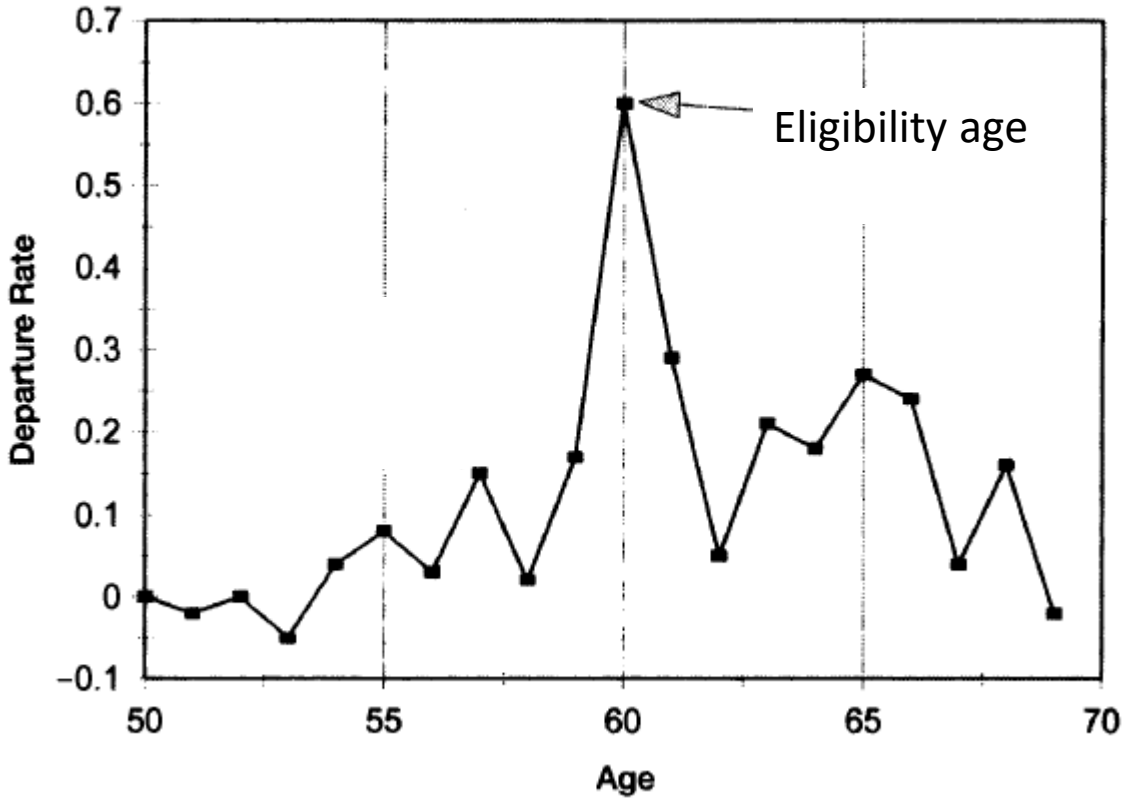
Social Security provision :

Age eligibility for pension

US : 62	France : 60	Australia : 65	Japan : 60
Singapore : 64	Indonesia : 56	**Thailand** : 55	Philippines : 60

France

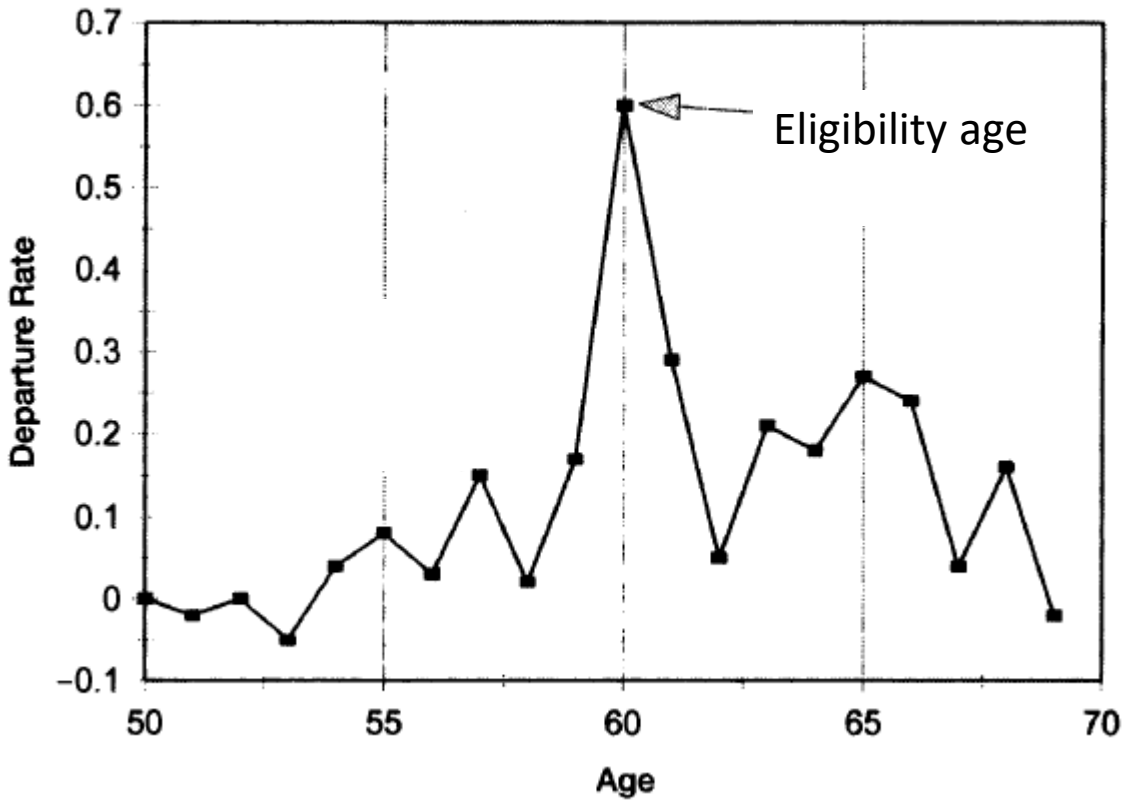
Rates of leaving employment by age



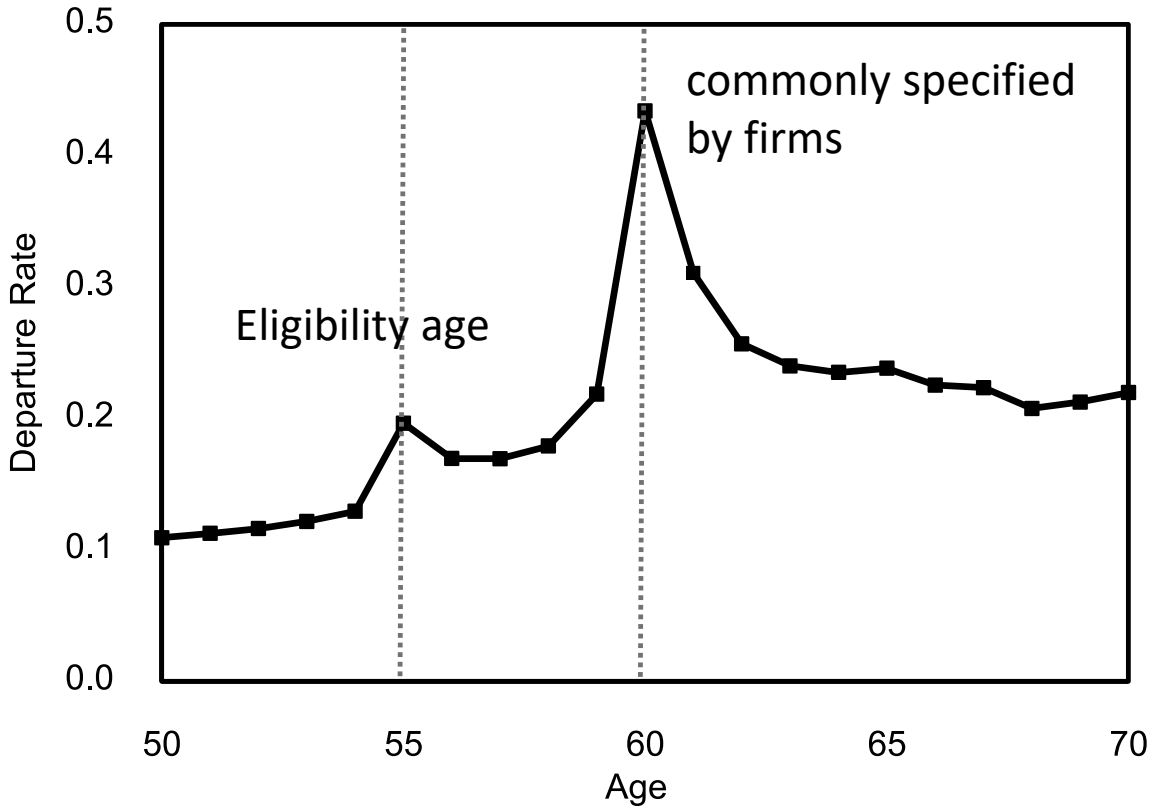
Source: Gruber and Wise (1998)

France

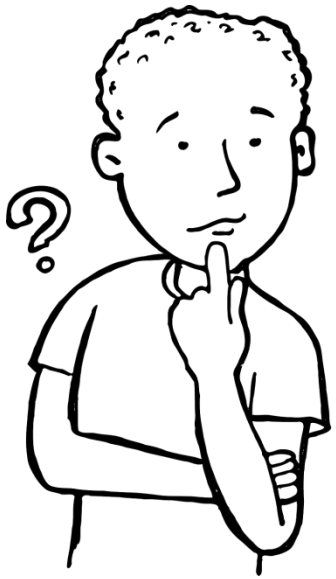
Rates of leaving employment by age



Thailand



Source: Gruber and Wise (1998)



Is retiring at 55 or 60 a problem?

The shrinking labor force capacity

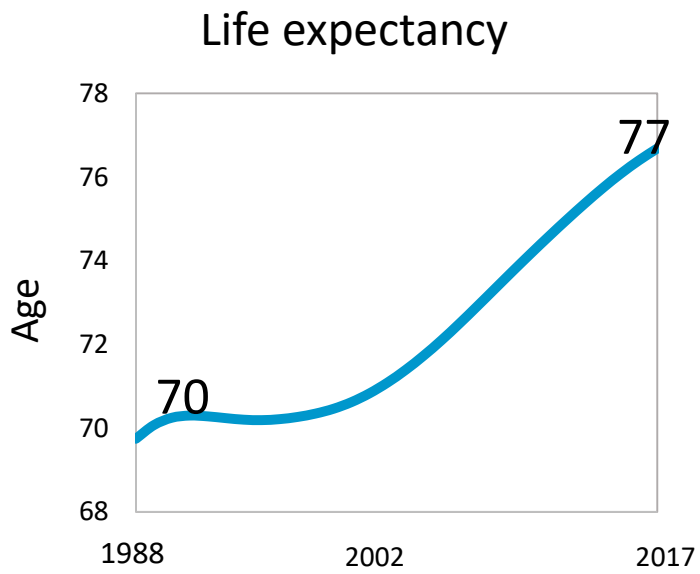
Labor force capacity = Number of workers x Years in lifetime working

low fertility rate ↓

The shrinking labor force capacity

Labor force capacity = Number of workers x Years in lifetime working

low fertility rate ⬇ ?



Healthy life expectancy : 67

The shrinking labor force capacity

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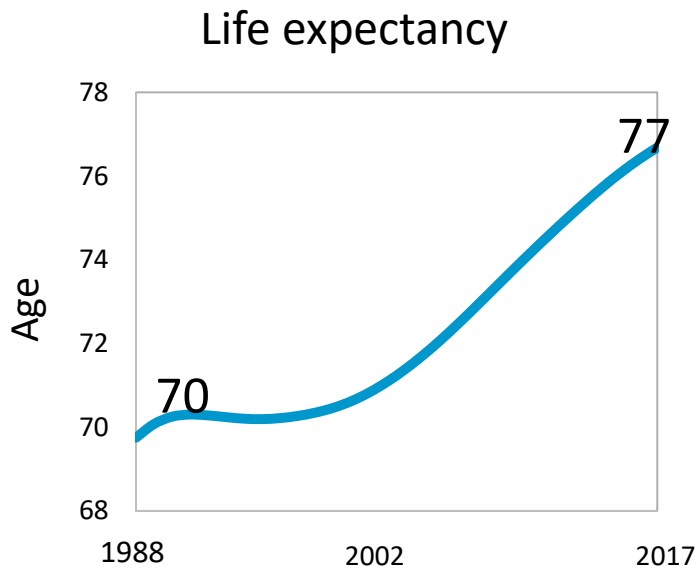
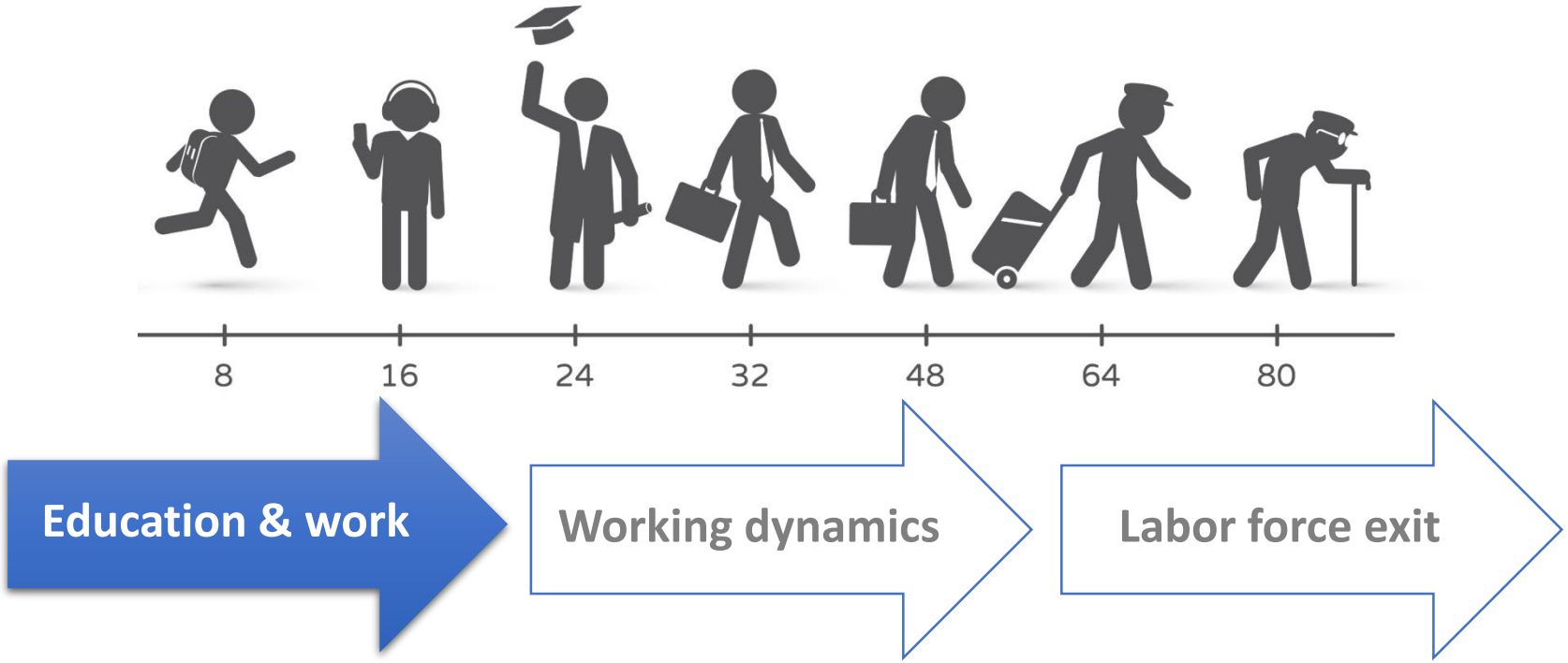


Healthy life expectancy : 67

Living longer, but still retiring at 60 ?

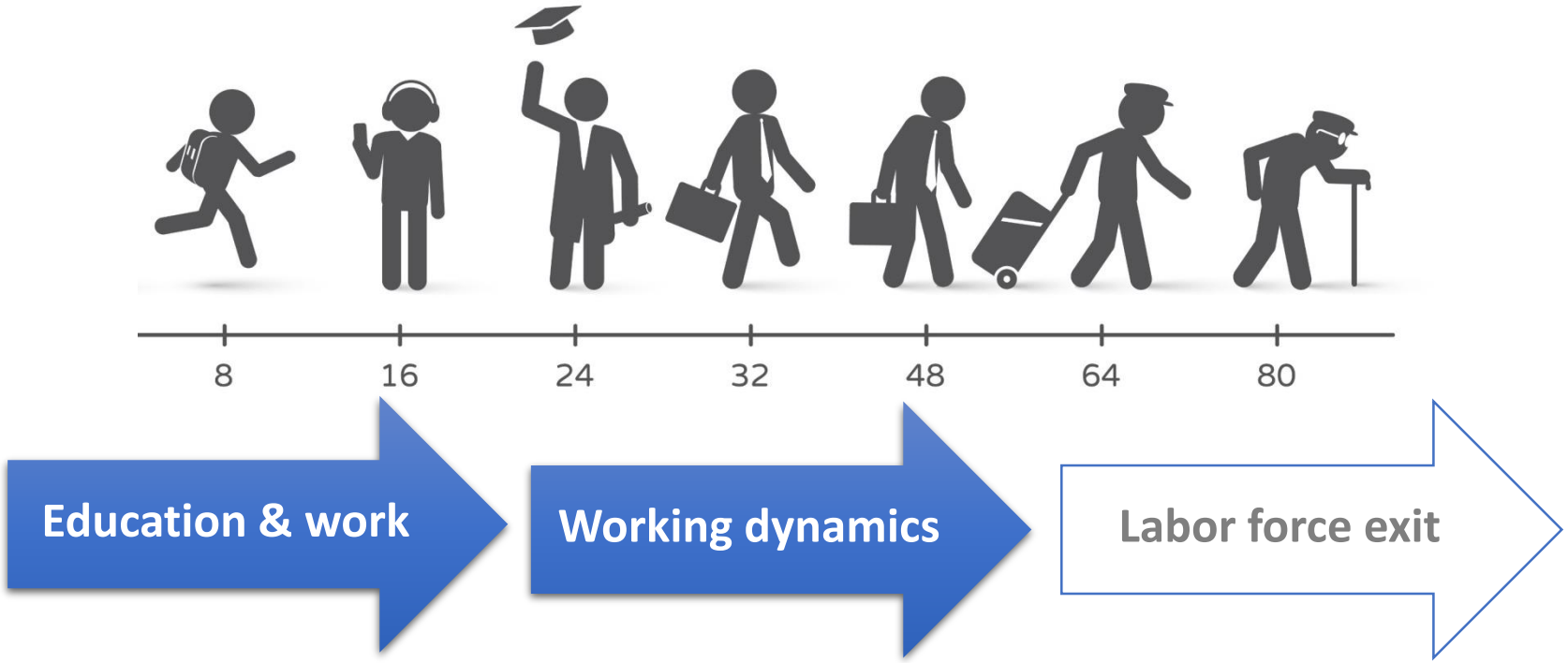
Concern #3 : We could have done more to slowdown the shrinking labor force

Have we reached our potential? : key findings



mismatches between education & jobs

Have we reached our potential? : key findings



mismatches between education & jobs

many workers are left behind

Have we reached our potential? : key findings

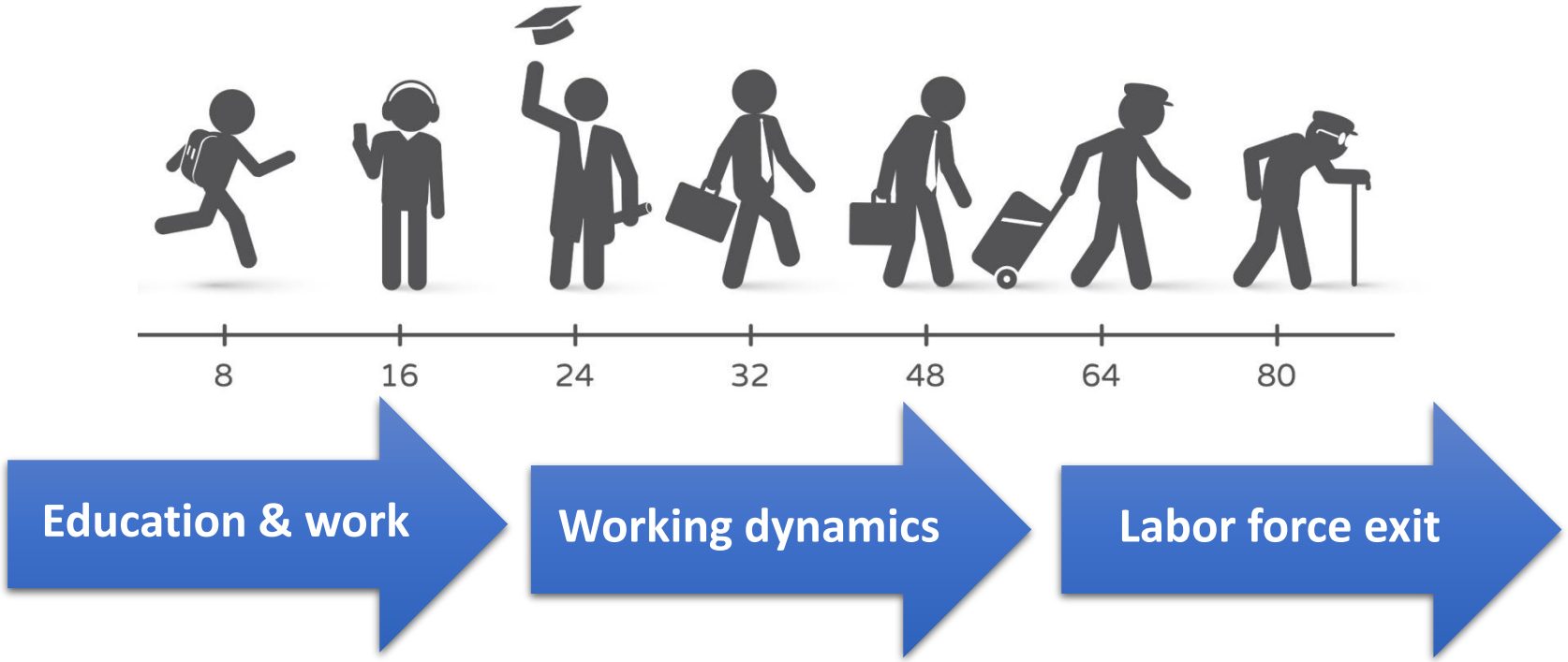
Education & work → **Working dynamics** → **Labor force exit**

mismatches between education & jobs

many workers are left behind

likely have unused productive capacity

How to unlock our full potential?



mismatches between education & jobs

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Policy Implications

mismatches between education & jobs

many workers are left behind

likely have unused productive capacity

Is it a problem of "**skills**" or "**jobs**"?

Education
quantity vs. quality

High-skill job
creation

more flexible training
to reflect the rapid changing demand

Policy Implications

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Equal opportunities

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High-skill job
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Equal
opportunities

Older workers:

retain the productive ones
&
re-train the unproductive ones

We need our people & society as a whole to help the country reach its potential and move toward competitiveness