

Singapore in Transition: Demographics, Jobs, and Wealth

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On the surface, all seems well in Singapore, post-Covid:

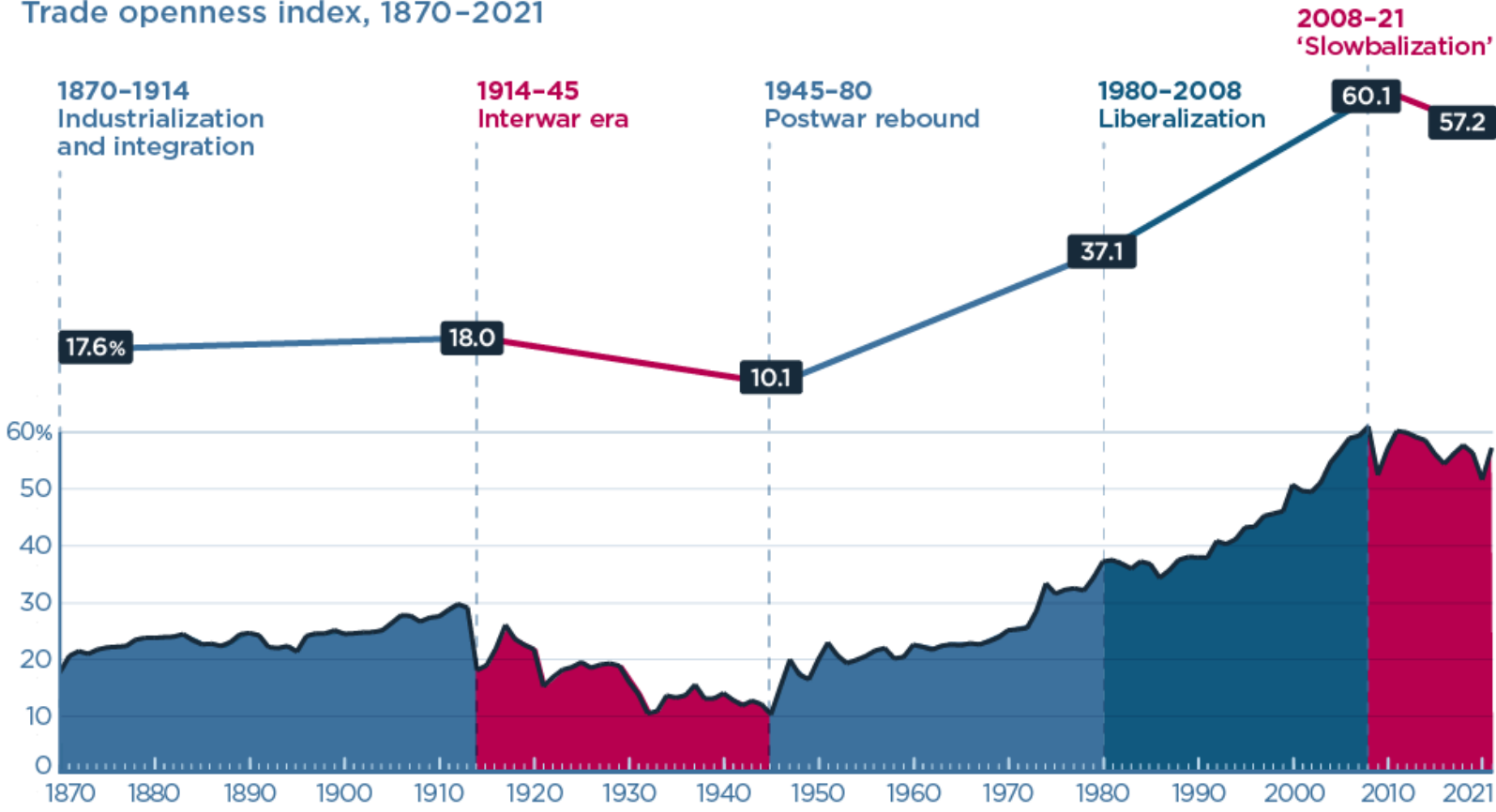
- Singapore has enjoyed good economic growth since the initial Covid shock in 2020, expanding 3.6% in 2022, on the back of 8.9% growth in 2021.
- Resident unemployment rates have returned to pre-Covid trends of around or under 3%, consistent with full employment in Singapore.
- Despite high inflation running at 6.1% for 2022, workers and households experienced modest real wage growth in 2022 (2% for workers and 0.2% for households), and lower income deciles had higher per-capita real wage growth.

... yet our seeming economic stability masks significant underlying structural challenges as our economy and society transitions:

- A rapidly aging society, with nearly 1 in 4 Singaporeans aged 65 and above within a decade (demographics);
- An economy with growing labour market polarisation by skills and jobs;
- And persistent structural inequality (wealth).
- These challenges take place in the context of a global economic environment considerably more hostile than what Singapore has experienced historically.
- And, it is not clear if present solutions will be sufficient or if more radical change is needed.

Globalization is in retreat for the first time since the Second World War

Trade openness index, 1870-2021



The globalization that Singapore benefited from used to be geopolitical orthodoxy...

But post-Covid strategic interests in reducing global supply chain risks;

US-China trade tensions and technology bifurcation;

Growing nationalist sentiments in many countries;

All threaten to reverse the long trend towards greater global economic integration.

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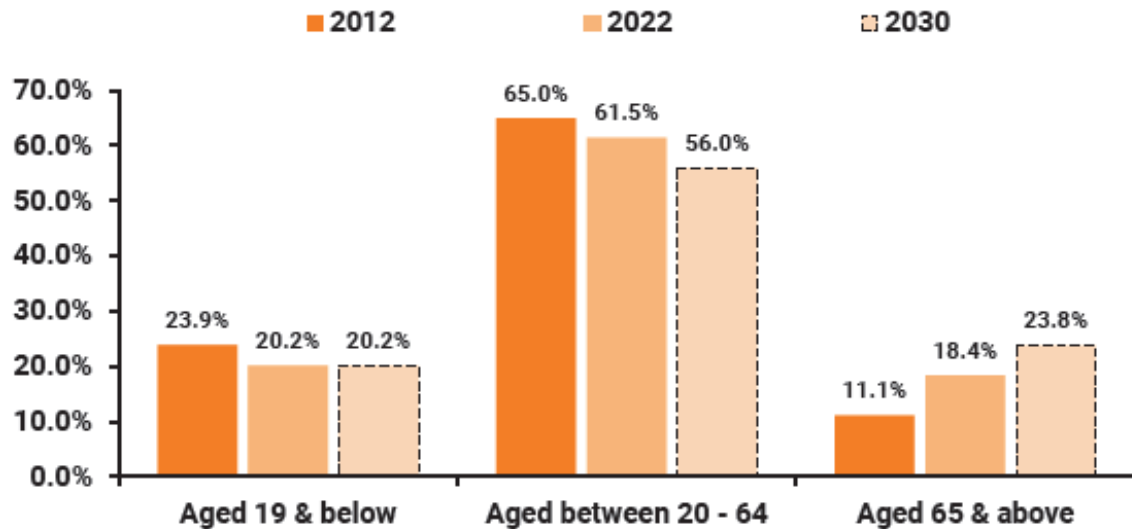


Note: The trade openness index is defined as the sum of world exports and imports divided by world GDP. 1870 to 1949 data are from Klasing and Millionis (2014); 1950 to 1969 data are from Penn World Tables (10.0). 1970 to 2021 data are from the World Bank.

Sources: Our World in Data; World Bank, World Development Indicators; and author's calculations for 2021.

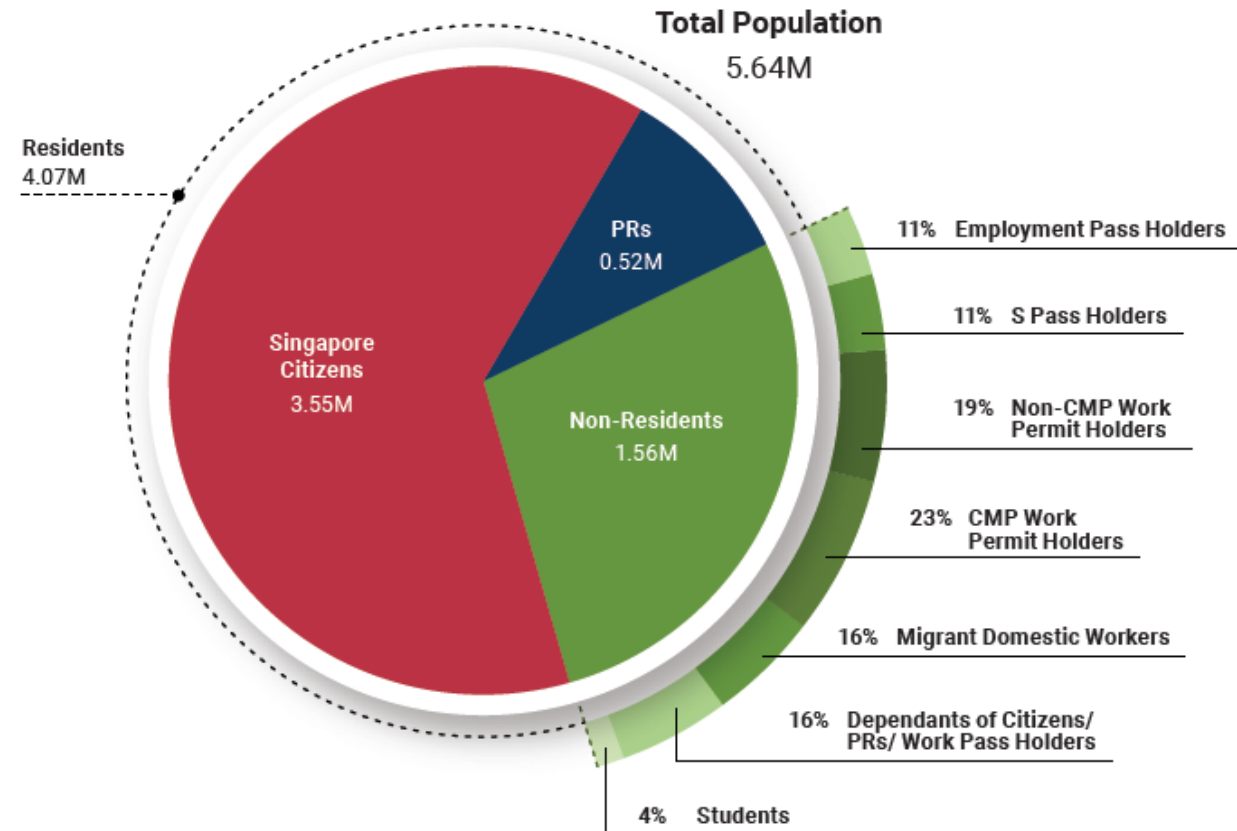
Demographics: Singapore's citizen population continues aging rapidly, and total fertility rates remain low at 1.12, resulting in a need for substantial immigration to maintain and expand the labour force. Sources for figures: Population in Brief 2022, National Population and Talent Division

Chart 7: Citizen population by broad age bands, as at June⁸



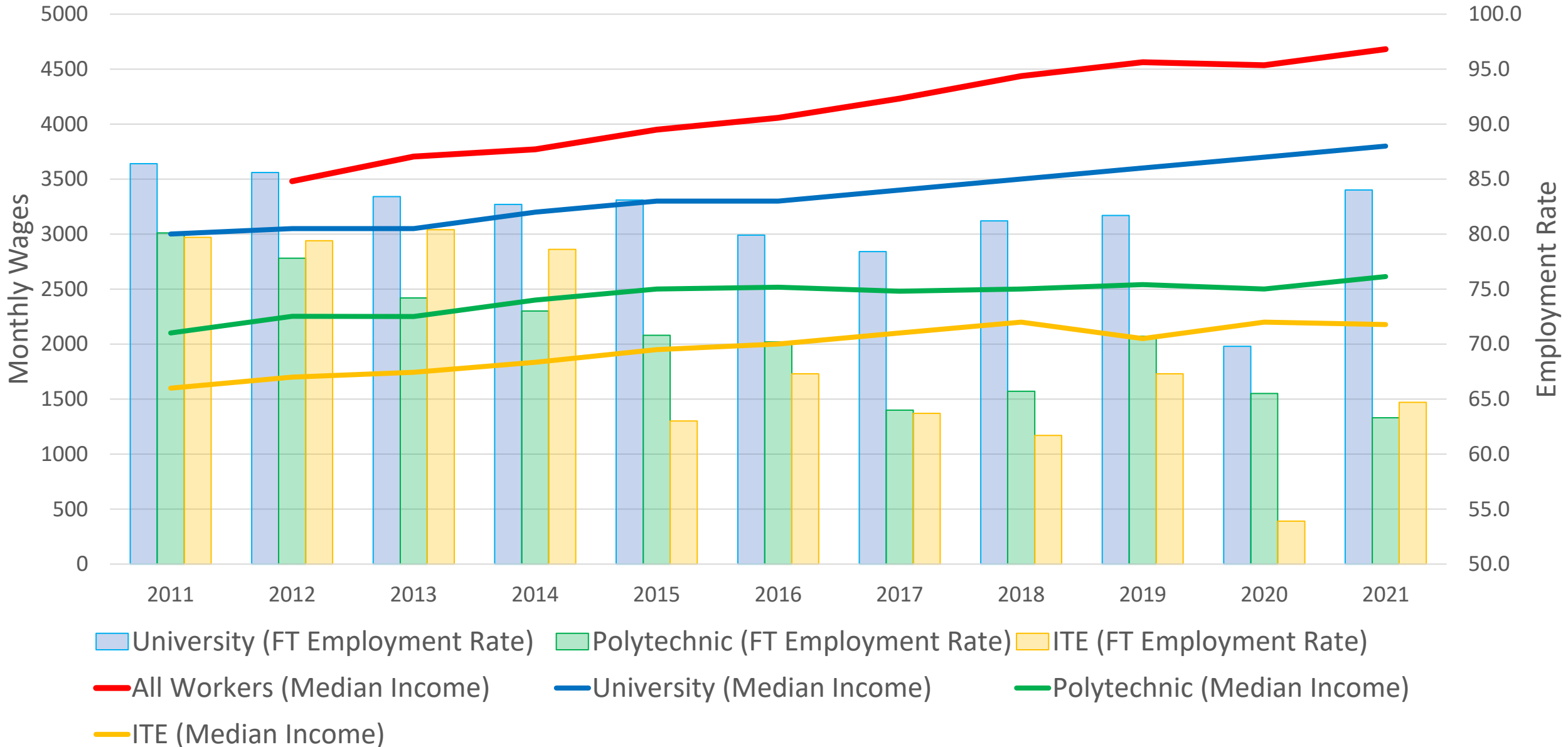
Singapore's Total Population Stood at 5.64M

Diagram 1: Total population, as at June 2022²



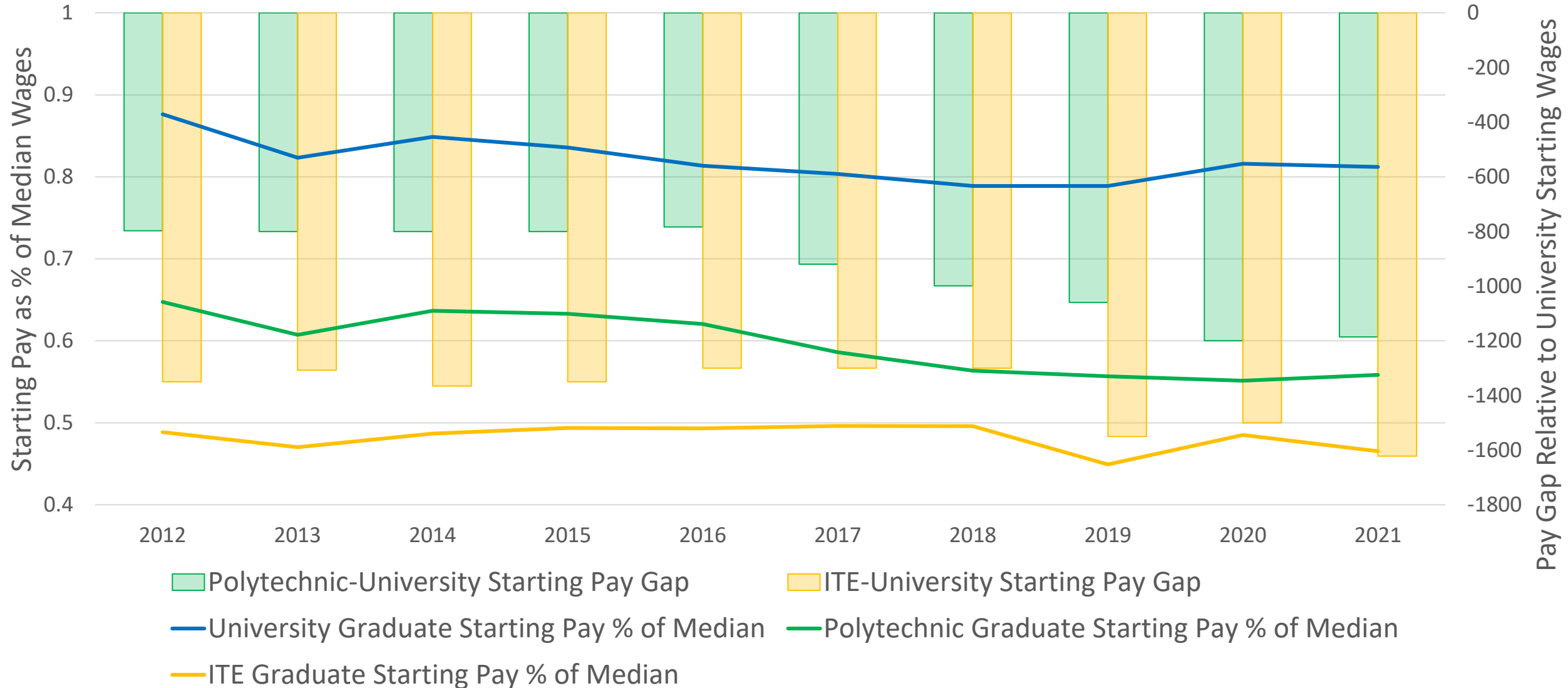
Jobs: The Graduate Employment and Starting Pay Gap

Source: Ministry of Manpower and Ministry of Education



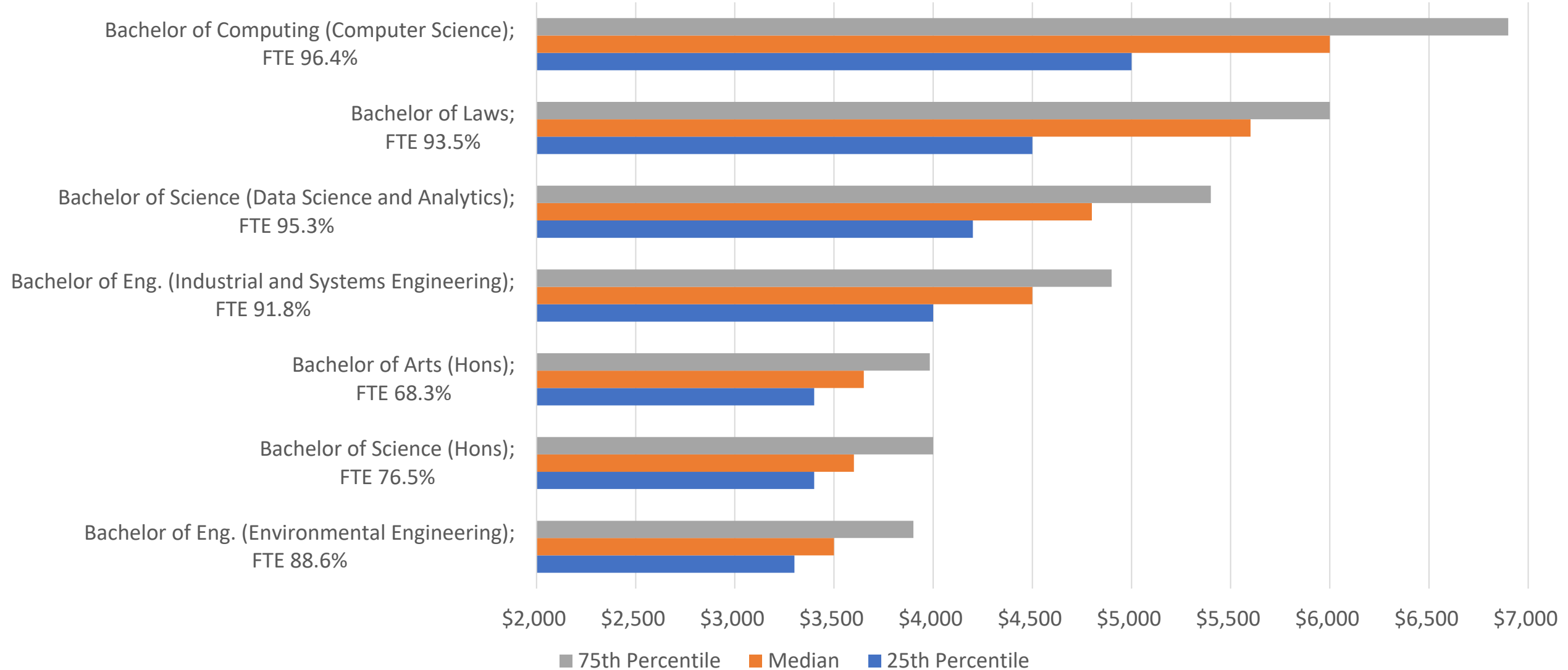
The Graduate Starting Pay Gap as a % of Median Wages and Relative to University Degree Graduates

Source: Ministry of Manpower and Ministry of Education



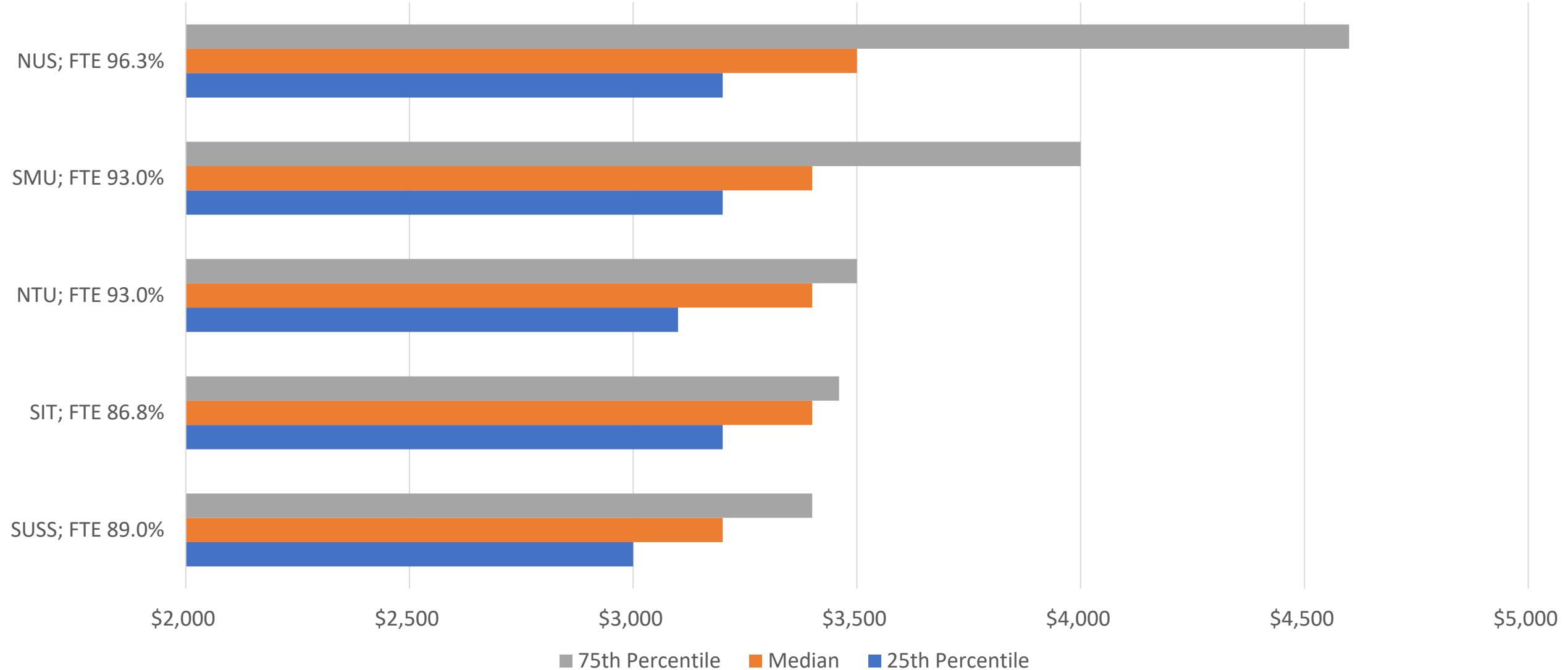
Starting Graduate Salaries in 2021, Selected Disciplines, National University of Singapore

Source: Graduate Employment Survey, Ministry of Education



Starting Graduate Salaries in Accountancy (Honours) in 2021, Singapore Autonomous Universities

Source: Graduate Employment Survey, Ministry of Education

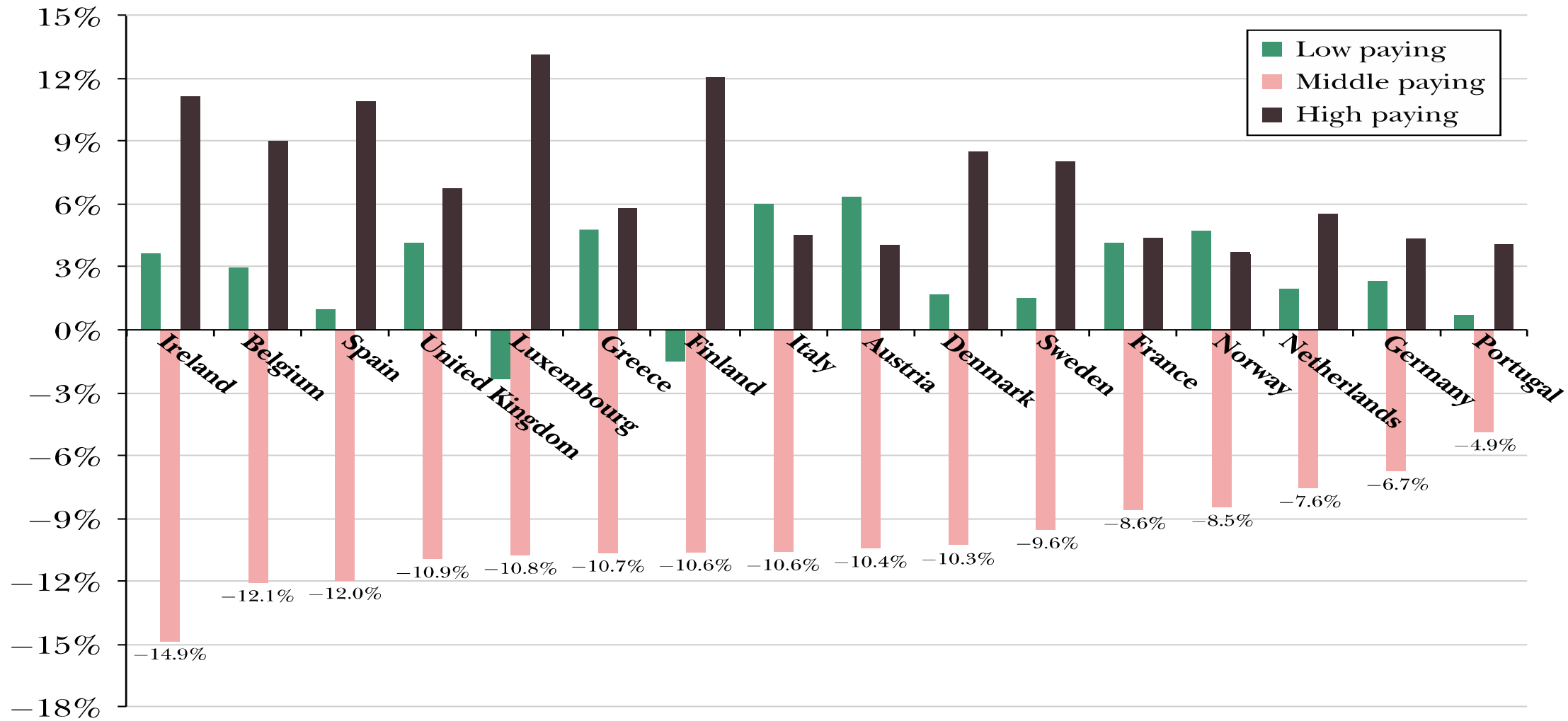


Jobs: Discussion

- Taken together, labour market returns to the ‘most skilled’ (University vs. Polytechnic and ITE) and to ‘specialist skills’ (e.g. Computer Science vs Arts and Sciences) have grown significantly relative to other graduates.
- How should we understand this? There are several possible explanations:
- Changes in the economic and technological structure of the labour market, that is, changes in the relative productivity of different skills;
- Changes in the relative availability of different skills in the labour market;
- Changes in how the returns to labour and capital are (re)distributed.

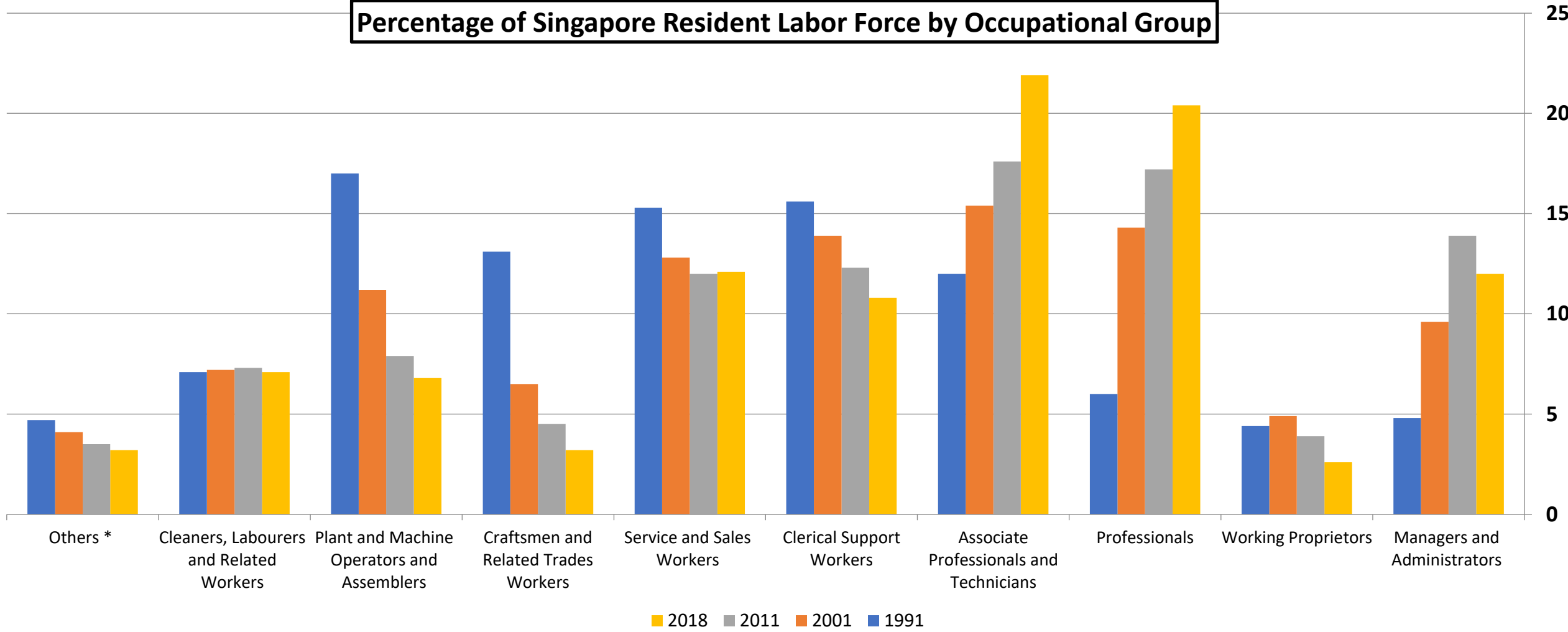
Jobs, Skills, and Industry 4.0

- Growing consensus that we are in the early stages of a massive, technology-driven shift in industry and labour markets, enabled by advances in robotics, big data, machine learning, AI.
- Such technological shifts are nothing new, but always entail significant adjustment costs. While historic experience suggests economies readily absorb shifts in labour demand (e.g. US agricultural labour force fell from 41% in 1900 to 2% in 2000), recent technological changes are thought to have two contrasting effects:
 - Expand demand for high-skilled workers who complement technology;
 - Expand demand for low-skilled workers who provide services that are hard to replace with technology, and which are consumed by high-skilled workers.



Evidence of Job Polarization Across the High-Income Western Economies (Autor 2015)

Percentage of Singapore Resident Labor Force by Occupational Group

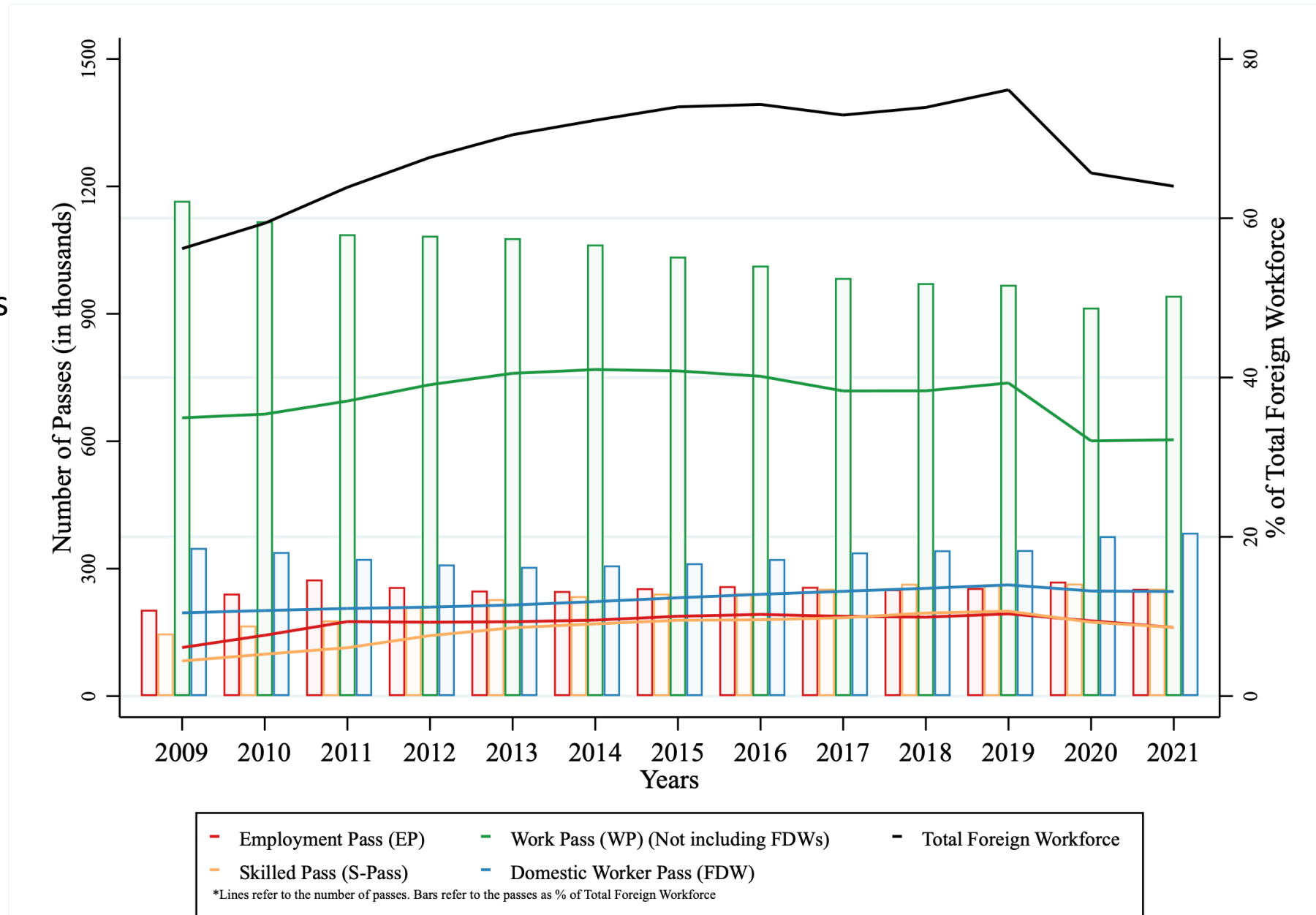


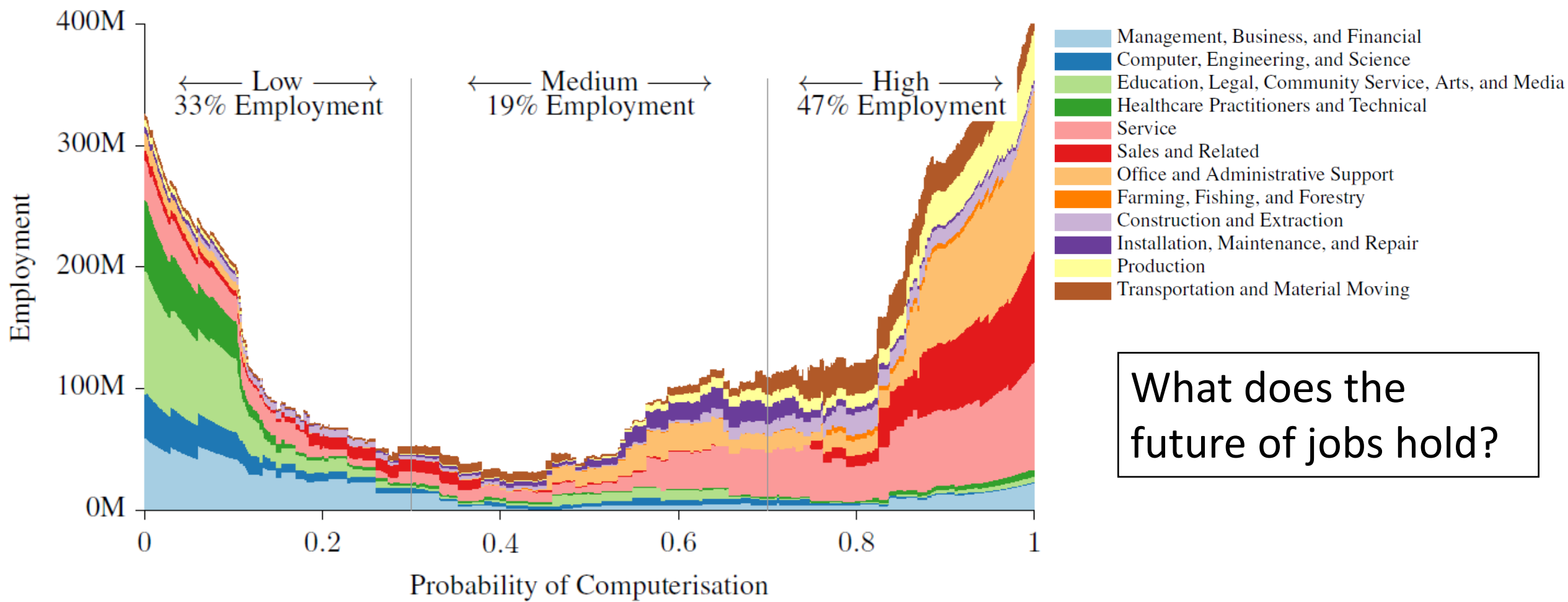
Over the last 30 years, the Singapore resident labor force has experienced **significant upskilling** and **less polarization** than the older developed economies.

This is partially because Singapore has heavily imported **non-resident migrant workers** heavily concentrated in lower-skill jobs.

However, this has consequences for the wages and working conditions of **resident** lower-wage workers.

It may play a role in explaining why the University wage premium has grown, and wages and employability of non-University graduates have lagged.



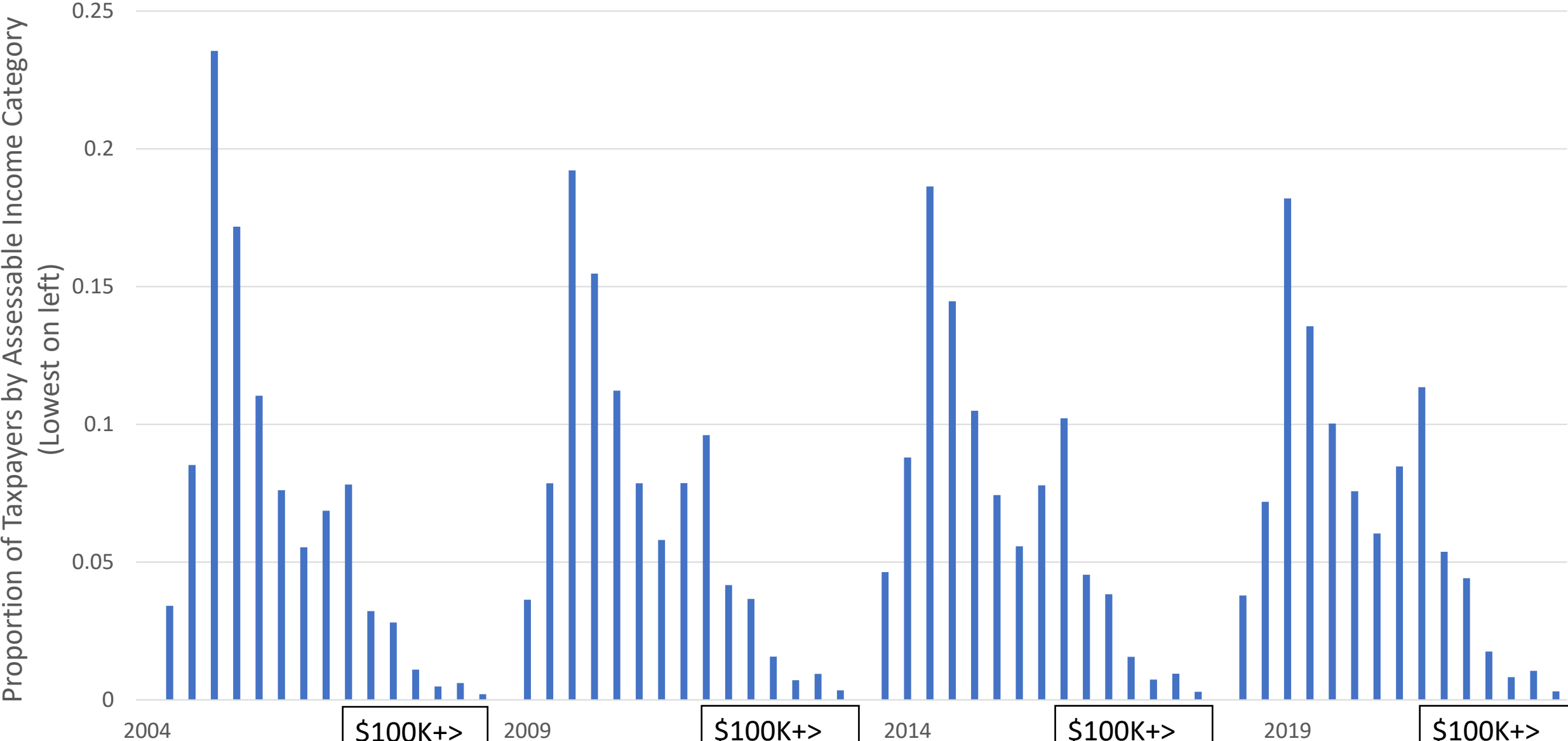


What does the future of jobs hold?

- Frey and Osborne’s (2017) “Bottleneck” approach predicts that 47% of U.S. jobs at High Risk of computerisation because their tasks have few constraints in (I) Perception and Manipulation, (II) Creative Intelligence, or (III) Social Intelligence.
- Office Support, Service, and Sales, are particularly prone to computerisation; People-facing Professional Services – Healthcare, Education, Arts, have low risk.
- An update of these predictions given recent generative AI (chatGPT, etc) advances would likely greatly increase the proportion of jobs at High Risk, including many formerly secure jobs with a high reliance on “Creative Intelligence”.
- It seems likely that, if AI continues to replace and complement tasks, that skill polarisation in the labour force will continue to increase.

Wealth: Distribution of Taxpayers by Assessable Income

Source: IRAS



Wealth: Discussion

The income distribution in Singapore appears increasingly bimodal, with a growing group of upper middle income earners, as well as substantial lower income earners.

While the Gini coefficient has been declining steadily over the last decade, indicating falling inequality in income (particularly after taxes and transfers), there remain substantial income gaps, suggesting much of the moderation in inequality has been due to growth of the upper-middle class.

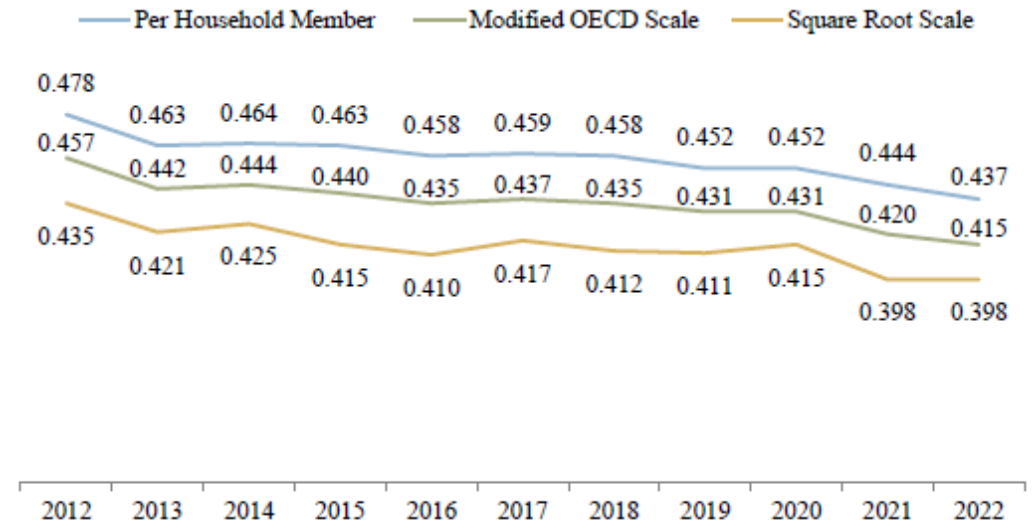
Wealth inequalities are also substantial. The Credit Suisse Wealth Report estimated that in 2021, while mean wealth per adult in Singapore was \$358,204 USD, median wealth was only \$93,133 USD.

An estimated 6.1% of the Singapore adult population have wealth exceeding \$1 million USD – but 52% have wealth of less than \$100,000 USD.

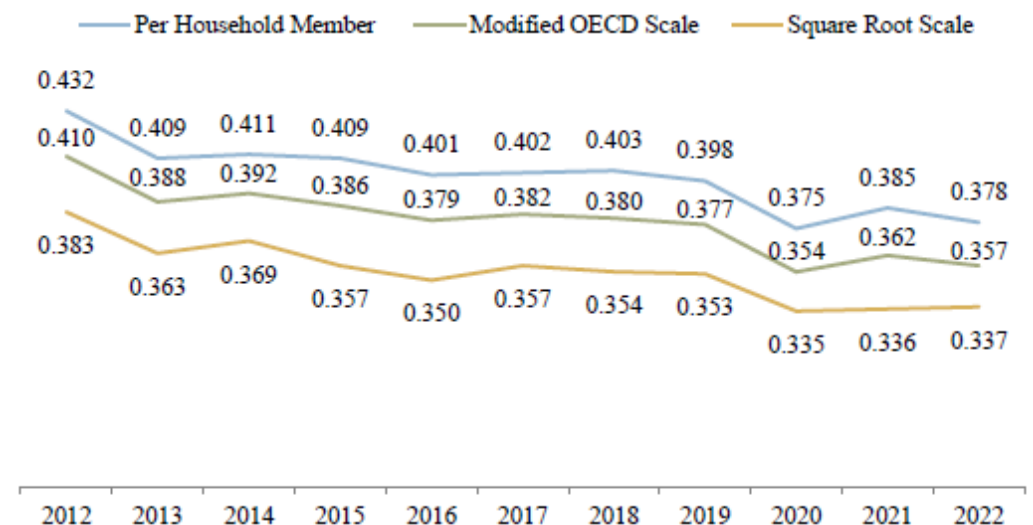
The estimated Wealth Gini of Singapore is 0.788 – highly unequal; the top 1% in Singapore are estimated to own 34.5% of all the wealth.

Chart 8 Gini Coefficient Based on Different Methods

Household Income from Work Including Employer CPF Contributions



Household Income from Work Including Employer CPF Contributions
After Accounting for Government Transfers and Taxes



Managing Singapore's Transition: Budget 2023 and Beyond

- Important not to look at Budget in isolation since structural challenges are long-term and also require long-term policy adaptation and change.
- Our structural challenges revolve around the interrelated need to reshape the economy and the labour force for a rapidly changing global economy, while providing resilience and support for workers and families.
- Focusing on labour in particular, the challenge for lower wage workers is how to enhance social protection, given their significant exposure to inflation, and given that the structural use of foreign labour holds lower skill wages down.
- For higher wage workers, the issue will be how to manage skills transitions and career disruption, given that technological change is likely to significantly alter demand for medium to high wage skills.

Short-Term Support for Lower Wage Workers and Households

Target is to protect lower income households from inflation

No use of broad-based subsidies (although there are some broad based cash handouts) to target inflation, unlike e.g. EU policy on Ukraine War-induced energy crisis.

Dealing with persistently high inflation requires long term adaptation.

Support for Singaporeans in 2023: What you can expect to get



JAN	FEB	APRIL
<ul style="list-style-type: none">• \$300 CDC vouchers• Up to \$190 U-Save rebates• Up to 0.5 month of S&CC rebates	<ul style="list-style-type: none">• Up to \$300 Seniors' Bonus Cash• \$150 MediSave top-ups	<ul style="list-style-type: none">• Up to \$190 U-Save rebates• 0.5-1 month of S&CC rebates
MAY	JUNE	JULY
<ul style="list-style-type: none">• \$300 Edusave and Post-Secondary Education Account top-ups	<ul style="list-style-type: none">• Up to \$400 cash• Up to \$300 Seniors' Bonus Cash	<ul style="list-style-type: none">• Up to \$190 U-Save rebates• 0.5-1 month of S&CC rebates
AUG	SEPT	OCT
<ul style="list-style-type: none">• \$350/\$700 cash• Up to \$450 MediSave top-ups	<ul style="list-style-type: none">• \$400 Child Development Account top-up	<ul style="list-style-type: none">• Up to \$190 U-Save rebates• 0.5-1 month of S&CC rebates
DEC		
<ul style="list-style-type: none">• Up to \$600 cash		



Longer Term Structural Support for lower wage workers

Expansion of the PWM will cover 47% of lower wage workers in sectoral and occupational PW ladders.

Enhancement of the Local Qualifying Salary will cover 35% of lower wage workers, as their employers also hire foreign workers.

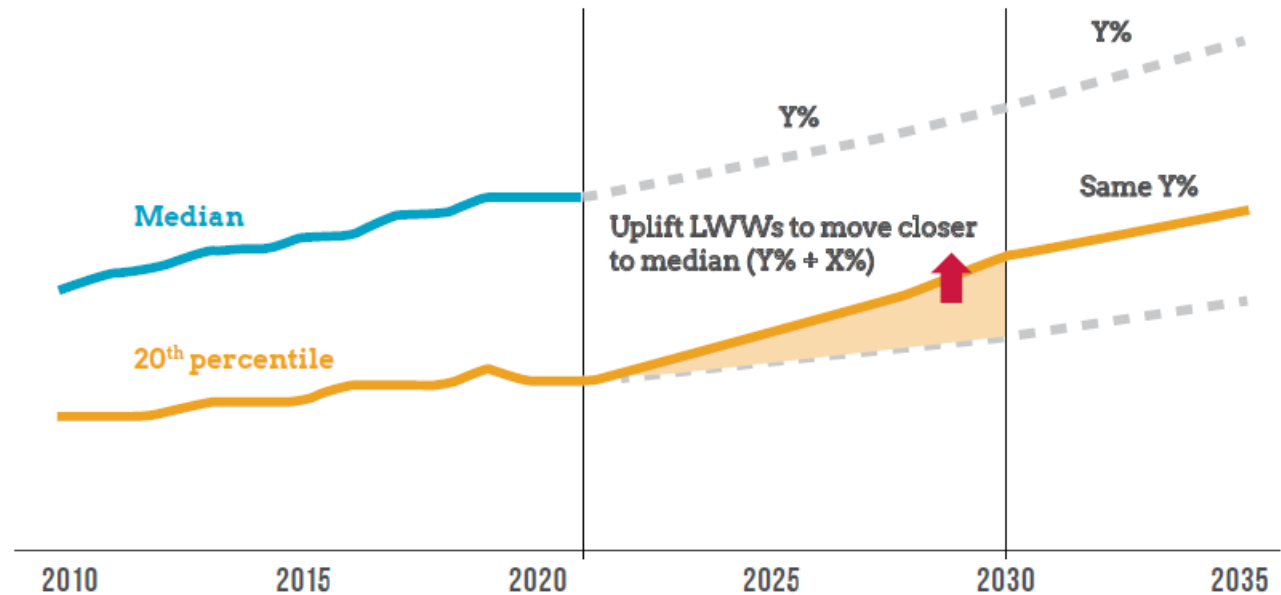
Existing policies of WIS and social support limited and ultimately socially problematic compared to workers earning living wages directly.

Middle class shifts in consumption required; higher income Singaporeans can no longer live manpower-intensive 'expatriate' lifestyles as if they were earning high global incomes in a developing country.

Percentage basic wage increase annually for Cleaning, Landscape Maintenance and Lift & Escalator sectors

Sector	Basic Wage Level 2022	2023	2024	2025	2026	2027	2028	Basic Wage Level 2028 (% growth from 2022)
Cleaning ¹	\$1,312	19.7%	10.8%	9.8%	8.9%	8.2%	7.6%	\$2,420 (84%)
Landscape Maintenance ²	\$1,850	8.6%	8.0%	7.4%	6.9%	6.4%	6.0%	\$2,810 (52%)
Lift & Escalator ³	\$1,850	12.2%	10.8%	9.8%	8.9%	6.0%	5.7%	\$3,080 (66%)

Figure 3.10: Illustration of the Workgroup's intent for lower-wage workers' wages to move closer to the median worker by 2030 before tapering to a growth rate similar to the median worker



Support for restructuring the economy

- Continuing support for business restructuring / technological adoption and worker upskilling.
- Generally, an input-driven approach, where Government provides subsidies and grants based on administrative criteria (e.g. identifying skills or funding gaps).
- Challenge is lack of evidence that training is structured in ways that actually lead to better outcomes in terms of employment and incomes. Appears to be increasing acknowledgment within Government that there is little hard evidence of success (in economic outcome terms) of initiatives such as SkillsFuture.
- The concept of “Job-Skills Integrators” was announced in Budget 2023, but will this effectively transform what is largely an input-driven market for skills training that appears to lack incentives for structuring training to deliver outcomes?

What remains for debate on future Budgets

- Social safety nets and unemployment support.
- Greater redistribution, given trends towards labour market polarisation and entrenched wealth inequality are likely to reinforce structural inequality.
 - Although research shows substantial economic mobility among prior generations of Singaporeans, there is less confidence mobility will persist today without active intervention.
- Conversations about the kind of society that Singapore should become, given the likely transformative role that immigration will play given very low resident fertility rates.
 - Based on current rates of assimilation, Singapore Citizen grants (excluding those based on descent) are about 20K annually, equivalent to 2/3 of the Citizen birth numbers of about 30K annually.