

The Future of Work is What We Make It

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Five Provocations

1. There is no visible acceleration of labour-saving technology.
 2. Both the “optimists” and the “pessimists” are wrong regarding automation and jobs.
 3. The modern labour market continues to create and recreate low-wage low-quality work.
 4. There is little new about “gig” jobs.
 5. The structural & institutional disempowerment of labour (not technology or lack of skill) explains workers’ deteriorating outcomes.
- Discussion of implications for skills & training.

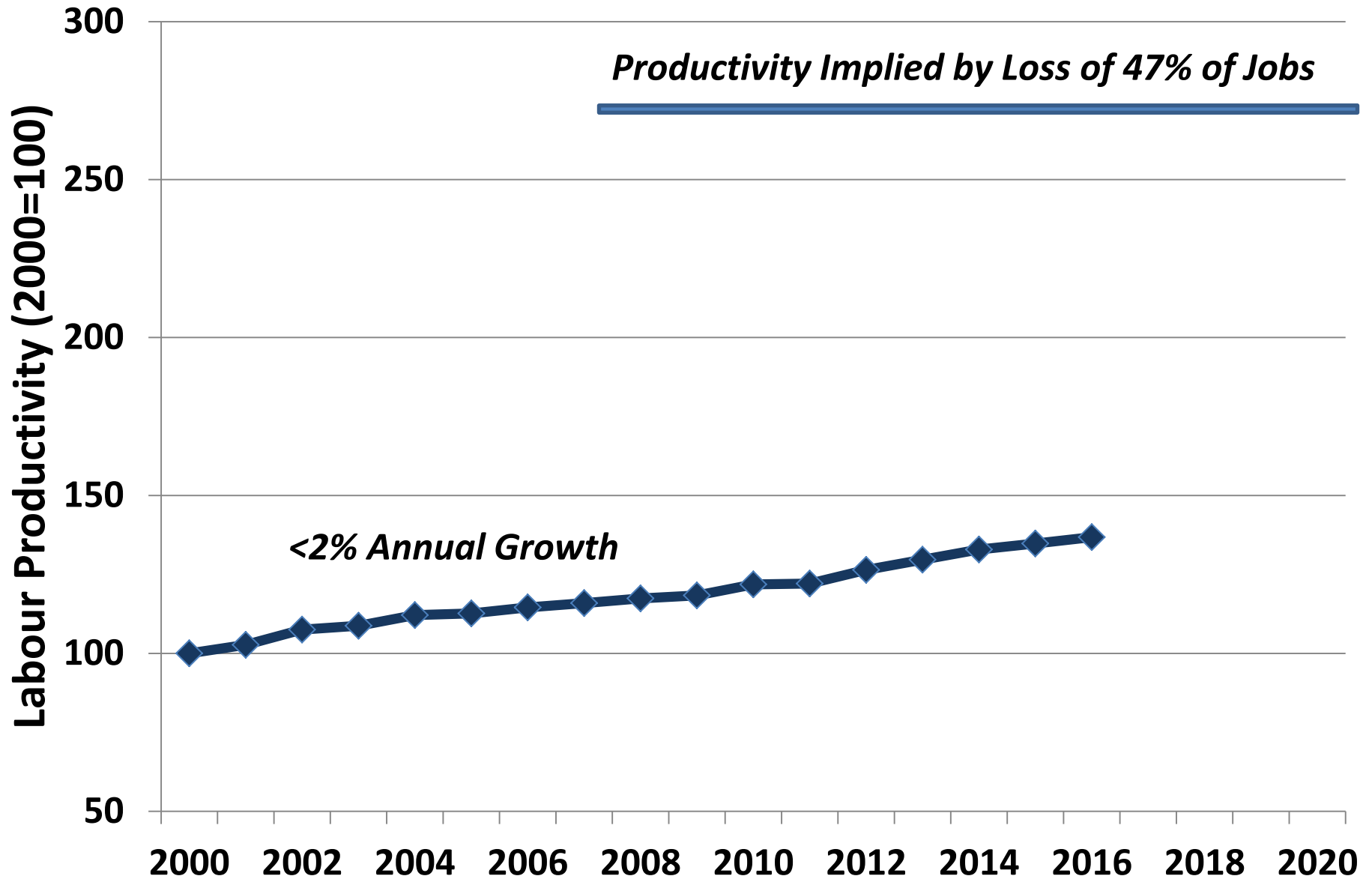
1. Labour-Saving Automation is not Actually Accelerating



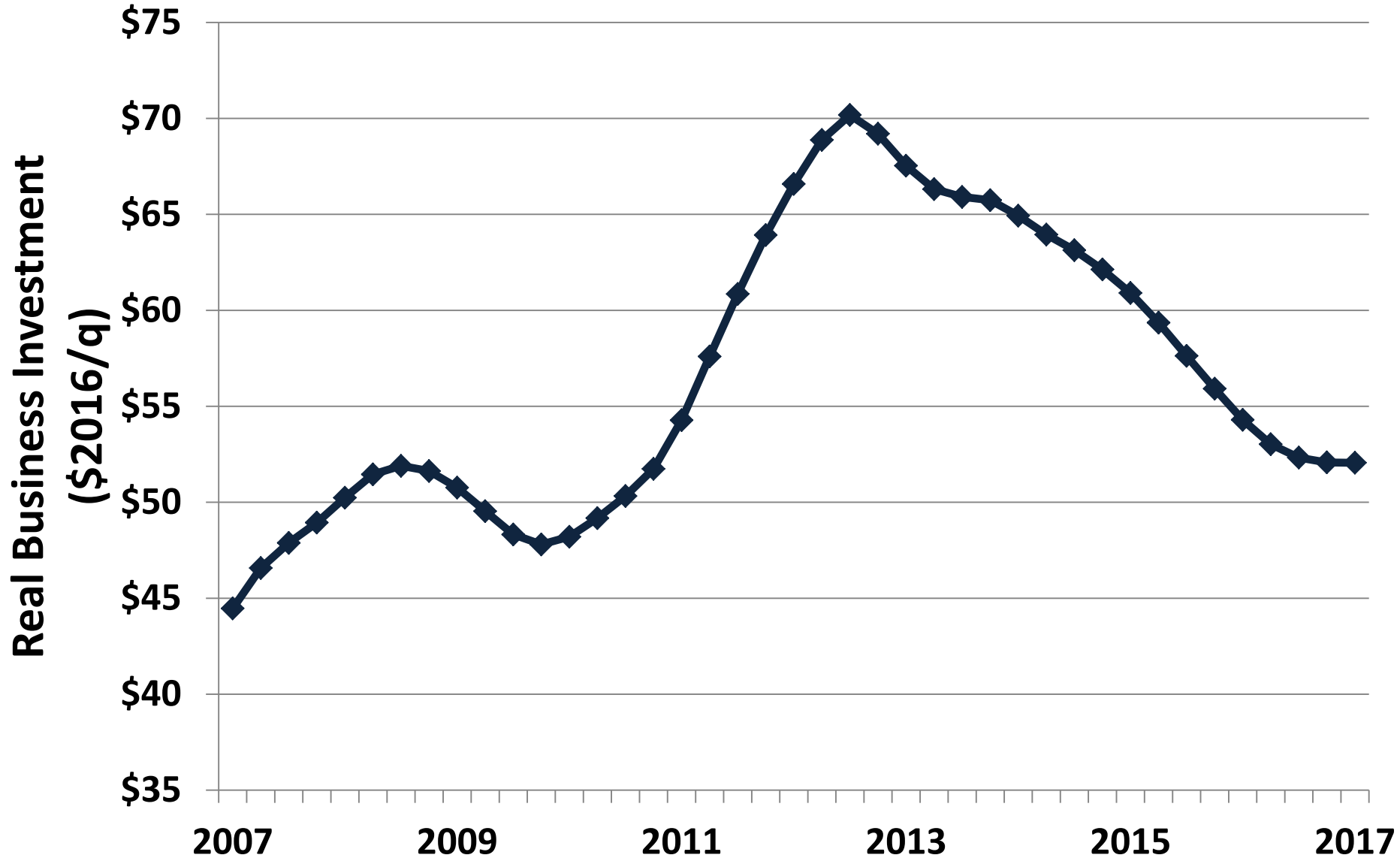
A Hare or a Turtle?

- Hype about automation / robotisation / computerisation does not match observed reality.
- Some industries / occupations are clearly affected.
- But recorded labour productivity growth is not accelerating (more likely slowing).
- Capital investment and capital intensity are declining, not growing.

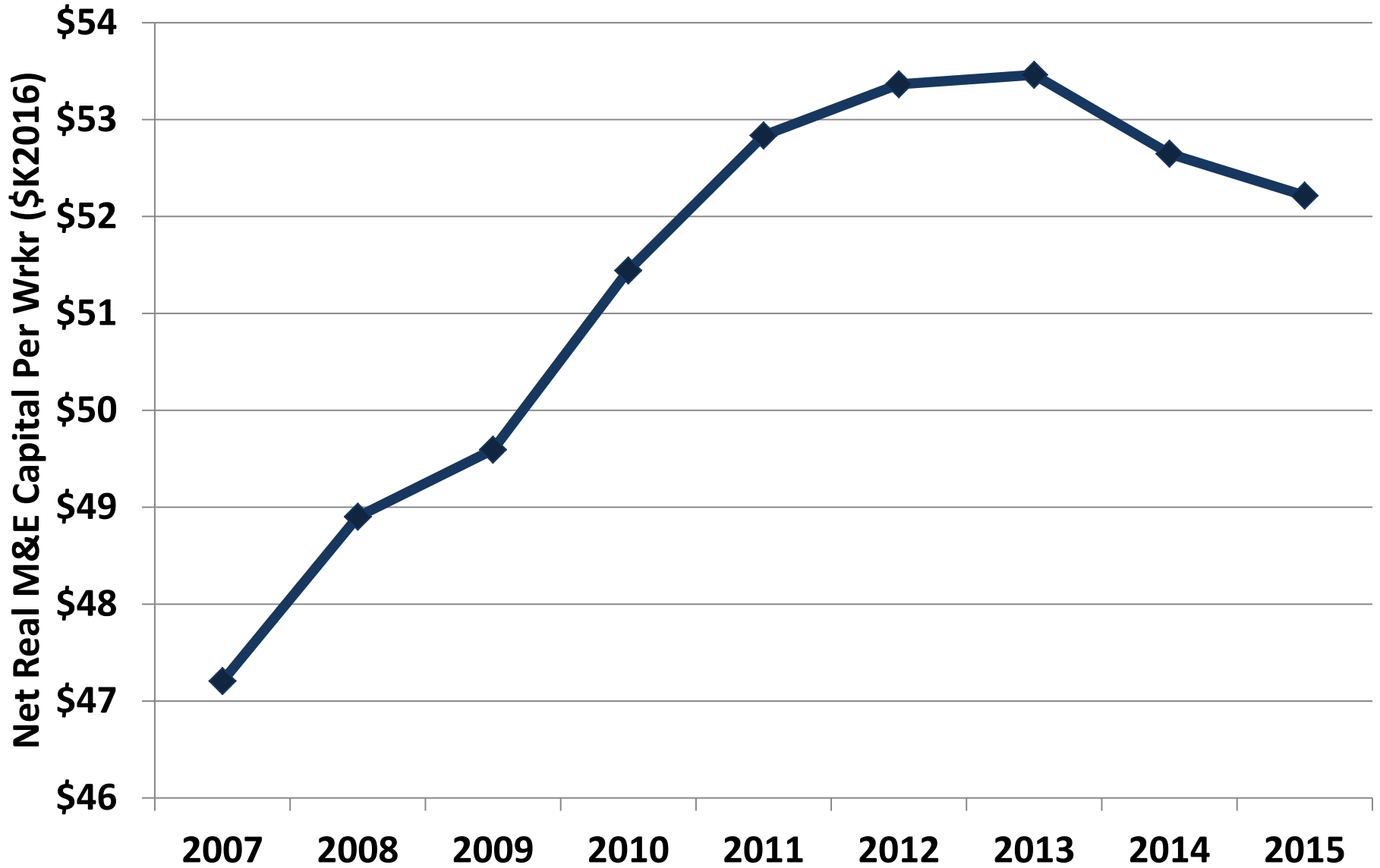
Actual & Implied Productivity



Falling Capital Investment



Eroding Capital Intensity



Example: Driverless Transport



Example: Driverless Transport

- Technology of full automation is progressing more rapidly than expected.
- Many barriers will limit its implementation in real-world (rather than laboratory applications):
 - Regulation.
 - Infrastructure.
 - Proof of safety.
 - Social acceptance.
 - Capital / management adequacy.
 - Lag times to phase in new equipment.

2. Both the Pessimists and Optimists are Wrong



Empty Glass

$$E = \frac{Q}{q}$$

- There is a fixed amount of “work” (for output Q).
- Amount of employment (E) depends on how much labour is required to produce that output.
- Robots boost productivity (q) → less jobs.
- Higher unemployment means lower wages.

Full Glass

$$E = L_s$$

- There is a given number of workers in society (L_s).
- Automation will cause displacement of some workers.
- But automatic market mechanisms will ensure their redeployment in other jobs.
- A helping hand from transition supports and monetary policy may be needed.
- Labour productivity grows, therefore wages grow.

A Curse on Both Houses (I)

- Quantity of output is not fixed.
 - It will change in response to demand.
 - Past waves of innovation sparked new demand through business investment (eg. railroads, mass production, computers).
 - Other sources of new demand could spur growth in output: including higher real incomes, demand for new products made feasible because of the technology.

A Curse on Both Houses (II)

- Work is created as well as displaced.
 - Work associated with invention / design / manufacture / operation / maintenance of the new machinery.
 - Work associated with new products made possible by virtue of the technology.
 - Work that is very menial but profitable, especially in conditions of chronic excess labour supply.

A Curse on Both Houses (III)

- There is no reason to expect that the jobs created will balance the jobs displaced or destroyed.
- No reason to expect a deregulated competitive labour market to achieve full employment.
- Even “guided” by monetary policy, capacity to reallocate displaced resources is inadequate.
 - Specific challenges for those affected.
 - General failure of aggregate labour demand.
- In history, the leading engine of growth during technological disruption was business investment: but today that is weak.

Glass-Half-Full Policy Implications

- Consider both the threats and the opportunities to work from technology.
- Play an active role maximising the “upside” and managing/assisting on the “downside.”
- Top emphasis on lifting both the quantity and the quality of work will help.

3. Continued Degradation of Work



Labour Market's Capacity to Create and Recreate Low-Quality Work

- In conditions of chronic excess supply and falling real wages (for marginal hires), firms can profitably hire people for very menial unproductive jobs.
 - Concentrated in non-tradeable services.
- Overlaps with shift to insecure non-standard positions (casual, contractor, sole proprietorships, “gigs”).
- Non-enforcement of minimum labour standards encourages this “low road.”

Jobs of the Future: Fastest-Growing Occupations, 2017-2022

Occupation	New Jobs (000)	Occupation	New Jobs (000)
Personal carers & assistants	90.6	Child carers	25.8
Midwifery & nursing professions	73.7	Misc. hospitality & retail managers	24.7
School teachers	38.4	Social & welfare professionals	23.6
Sales assistants & salespersons	34.8	Construction & dist'n managers	22.4
Hospitality workers	32.8	General clerks	22.2
Info.& organisation professionals	26.4	Education aides	21.9

Dept. of Employment forecast.

4. What is “Gig” Work? And is it Even “New”?

- 5 common key features:
 1. No commitment to continuing work (“on call”).
 2. Piece-work compensation.
 3. Worker assumes responsibility for providing equipment, workplace (“home work”).
 4. Triangulated relationship with an intermediary.
 5. Assumption of digital mediation.
 - What job doesn't have it??

What's New About "Gig" Work?

- Application of new technology in gig jobs mostly aimed at work organization, not production process itself.
 - Matching, scheduling, monitoring.
- Key features of gig work (irregular on-call scheduling, working on own premises with own tools, piece work compensation, triangulated relationship) have long history.

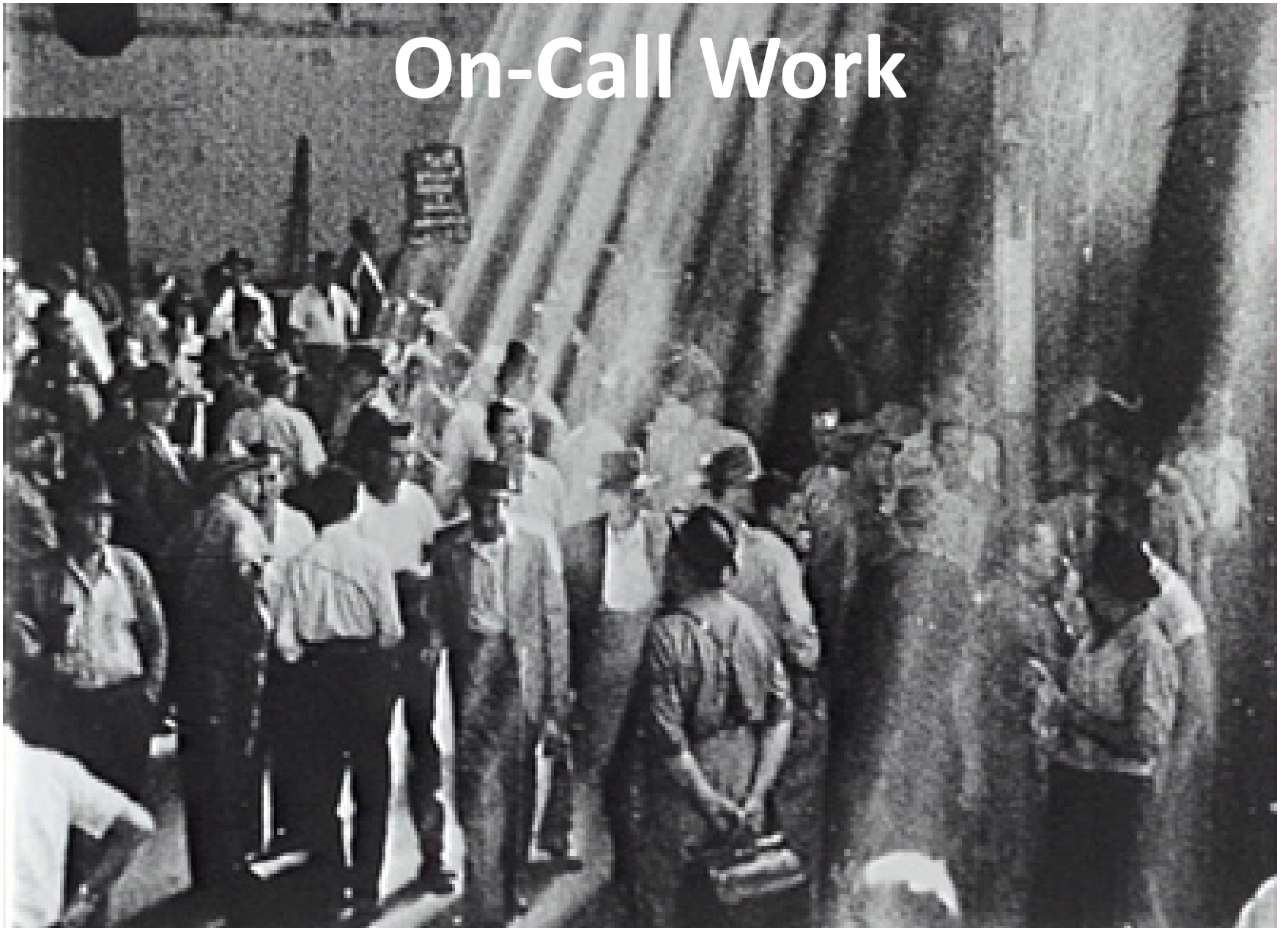
Home Work



Piece Work



On-Call Work



Labour Hire

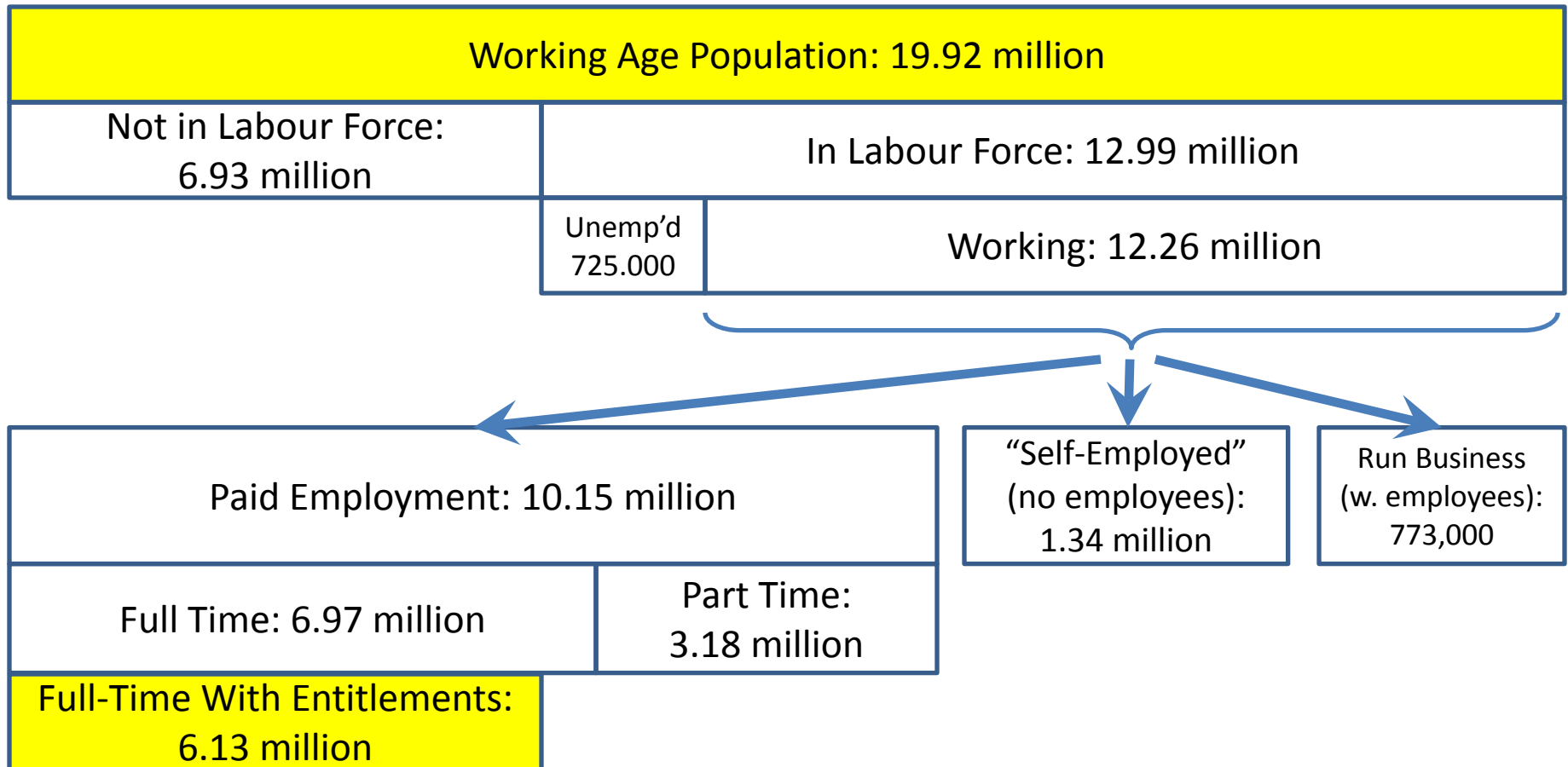


5. Structural & Institutional Disempowerment of Labour

- Erosion of institutions which supported higher and more equal wages explains the relative decline in labour incomes and their greater inequality.
- Because of economic conditions, regulatory openings, willingness (desperation?) of workers, and technology, employers have created a hyper-flexible system of just-in-time, precarious work.
- Technology facilitates this, but hasn't caused it.

The Prevalence of Insecure Work

(4-quarter average 2017)



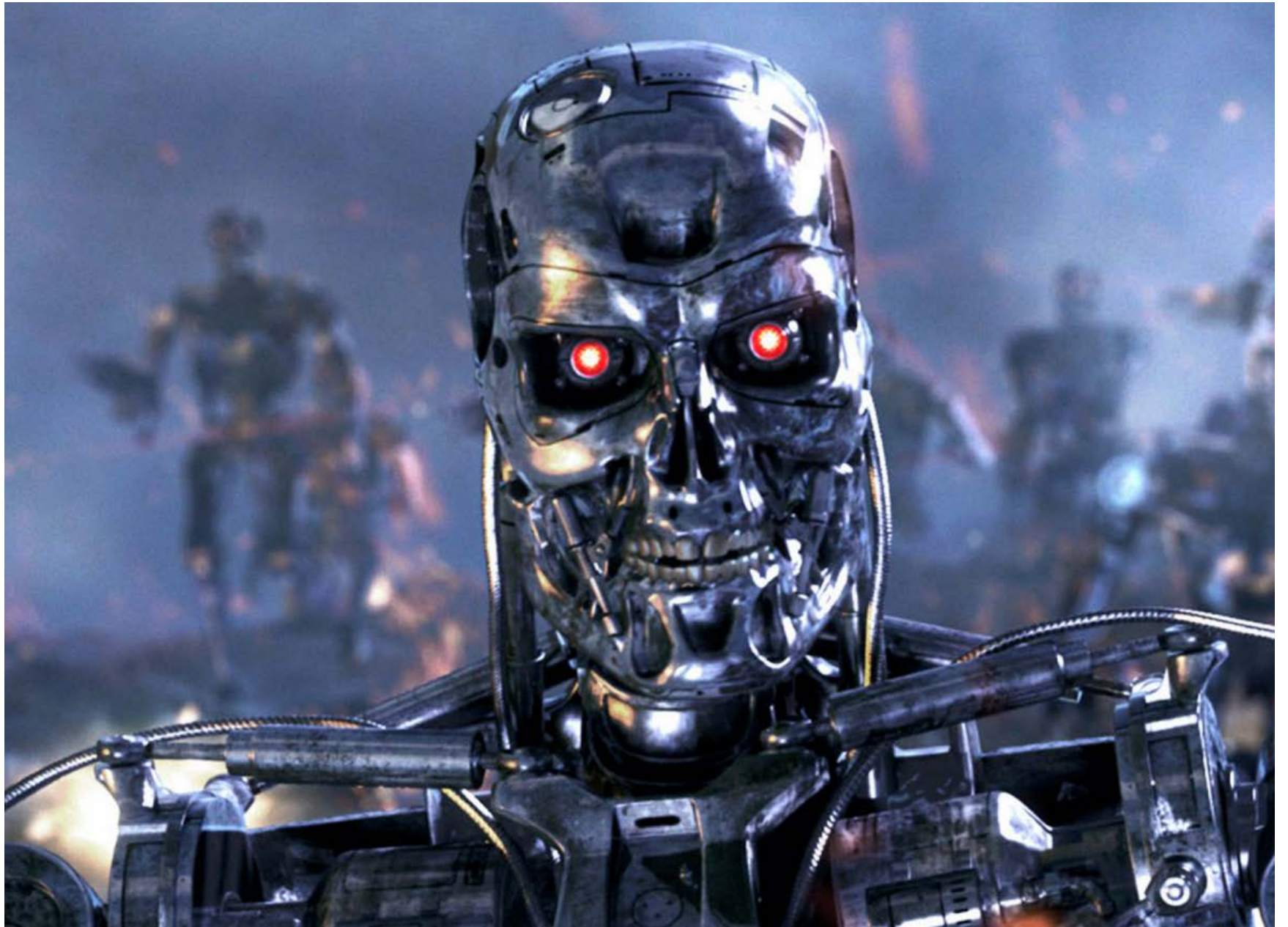
Australians in **paid full-time employment with leave entitlements** now account for just:
* 60% of paid employment * 47% of the labour force * 31% of adult population

New World for Workers

	1985	Current
Union Density (%)	47%	13%
Days Lost to Industrial Disputes (/1000 wrkrs)	222	12
Minimum Wage (% median)	59%	44%
Labour Share GDP (%)	51%	46%
Real Unit Labour Cost (2016=100)	111	97

Putting Technology in Its Place

- Every technical application has a social / political / regulatory context, that impacts its use as part of employers' cost-minimising business strategies.
- Example: Uber and “gig” jobs.
 - Why not use the actual new technology (dispatch system) to improve taxi service in a context that maintains standard jobs and stability of work??



Skills and the Jobs Crisis

1. Economy is not held back by a “lack of skills.”
 - It’s held back by a lack of jobs.
 - Australians are better-educated than ever.
 - Millions under-utilise their skills.
2. Training alone doesn’t create skilled jobs.
 - It does create valuable jobs in education.
3. Individuals with more education are better off... but often for the wrong reasons:
 - Signaling
 - Queuing (credential inflation)
4. “Wrong skills” often used to blame the victim.
 - Gov’t uses shallow training commitments as PR.

Technology, Structural Change, and Vocational Training

- New tech: Some jobs will be lost, some created.
 - Without strong job-creation commitment by policy, no guarantee those two will match.
- Training and retraining can facilitate mobility.
 - Again, no guarantee; protections needed for affected workers (redeployment & mobility rights).
- **Integrated into a holistic labour market strategy, high-quality training can play a crucial role as labour market adapts to new technology.**

Government and Higher Education:



Where's the beef?

Government: Where's the Beef?

- Token pledges for training and adjustment.
 - Usually at times of crisis or restructuring announcements, and/or to help “sell” painful policies (trade agreements, budget cuts).
- Rhetoric never matched with real resources.
- Treatment of vocational education especially destructive.
 - Privatisation.
 - Funding cuts.
 - System at risk of collapse.

Germany's Example



Germany's Example

- Effective integration of vocational training, industrial policy, R&D, and job-creation.
 - 1000+ identified, recognised, credentialed trades.
 - Seamless transitions: school → vocational training → work.
 - Emphasis on quality in both training and jobs (even private service jobs are treated like “careers”).
 - Invest in skilled people; then use them to build world-beating industries.
 - Unions are a partner in the system; training and skills are negotiated at firm and industry levels.
 - Youth unemployment rate: 7%.

A Positive, Pragmatic Vision for Training and Skills

- Skills aren't a "magic bullet" for the jobs crisis.
 - But they should be part of a bigger, integrated plan.
- Lifting the quality of work, creates economic space to provide high-quality skills.
 - Regulate occupations; set standards & credentials.
 - Example: disability services.
- Higher education needs stability & access.
- Vocational skills are legitimate and valued.
 - Australia's approach needs total re-boot, with well-funded TAFEs at the core.

Thank You!

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