



Women in Mining: Long-term trends and the effect of the economic cycle

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Outline

- ▶ Context
- ▶ Long-term Australian and industry trends
- ▶ Effect of the recent boom and downturn
- ▶ Conclusions

Note: “Mining” matches the ANZSIC Classification

- ▶ Includes Mining, Oil & Gas, Exploration & Services, excludes Smelting & Refining

Why this topic?

Why Female Employment?

- ▶ Female participation in Australia increasing generally but still gaps
- ▶ Evidence of positive economic & other performance outcomes
- ▶ Increase labour supply and increase GDP
- ▶ Increased regulatory, shareholder, community and research focus

Why Mining?

- ▶ Historically Australia's most male-dominated industry
- ▶ 20+ years of industry-specific research and publications
- ▶ Industry self-focus: gender equality strategies / policies, targets, pay gap
- ▶ A once in a lifetime boom, the GFC and downturn

Data

- ▶ ABS Labour Force Survey 1984 - 2018
 - ▶ Sample
- ▶ WGEA Reports 2013-14, 2014-15 and 2015-16
 - ▶ Census non-public entities 100+ employees
- ▶ Good general alignment but some data limitations

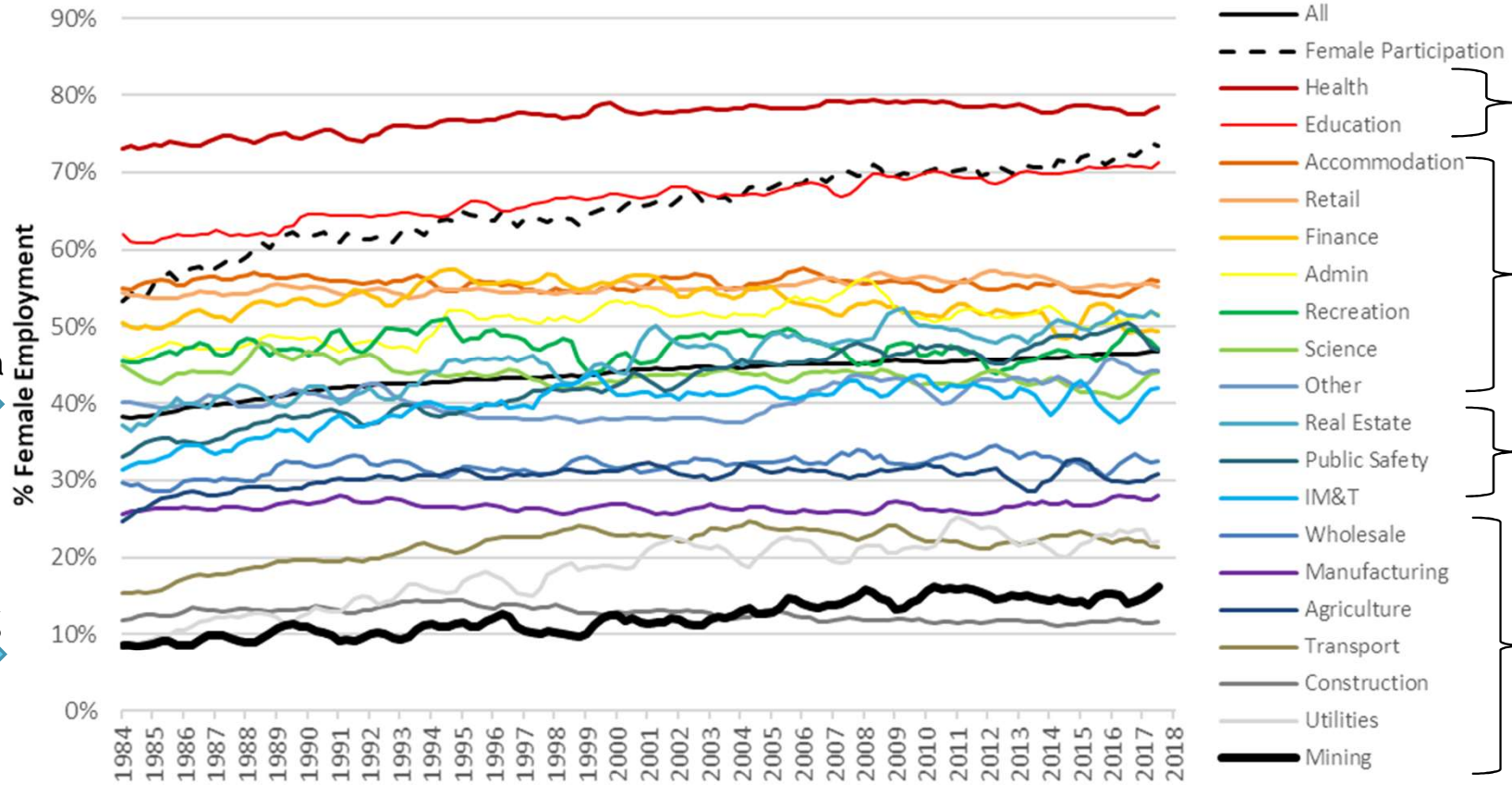
	2013-2014			2014-2015			2015-2016		
	% Female	Employees	Females	% Female	Employees	Females	% Female	Employees	Females
WGEA	15.72%	190,171	29,895	15.96%	177,639	28,343	15.81%	148,724	23,507
ABS	15.15%	265,928	40,289	14.67%	234,445	34,304	13.78%	227,876	31,399

Female Employment in Australia Long-term Trends (1984 - 2018)



Australia (All Industries) Long Term Trend

Percentage Female Employment by ANZSIC Category 1984 - 2018
 (12MRA calculated from 6291.0.55.003 Labour Force, Australia, Detailed, Quarterly (ABS 2018))



Female dominated:
Females >60%

Mixed gender:
Females 40-60%

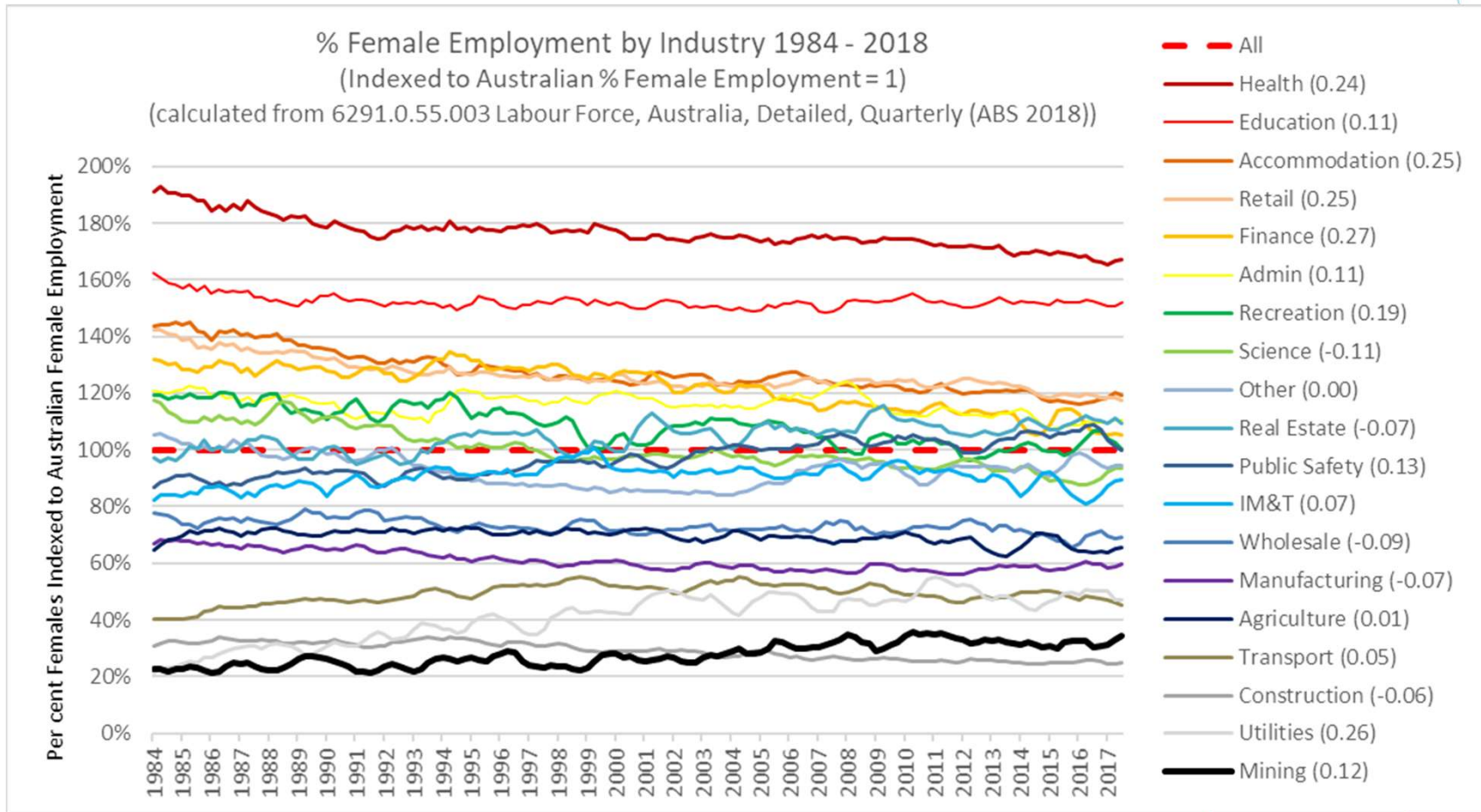
Transition
to Mixed

Male dominated:
Females <40%

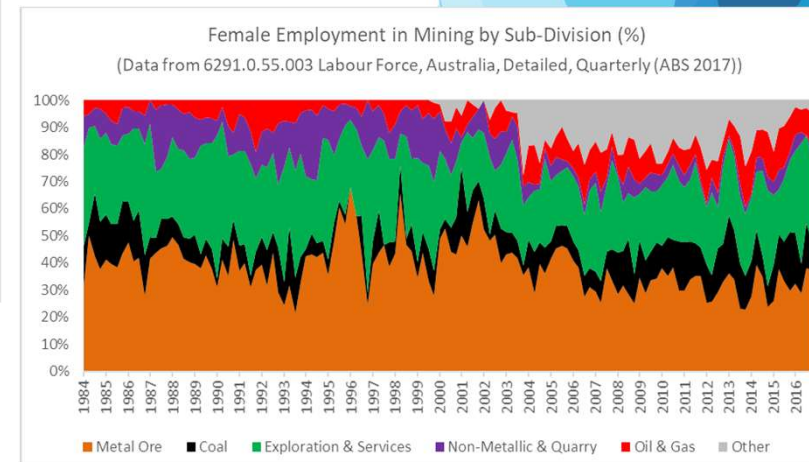
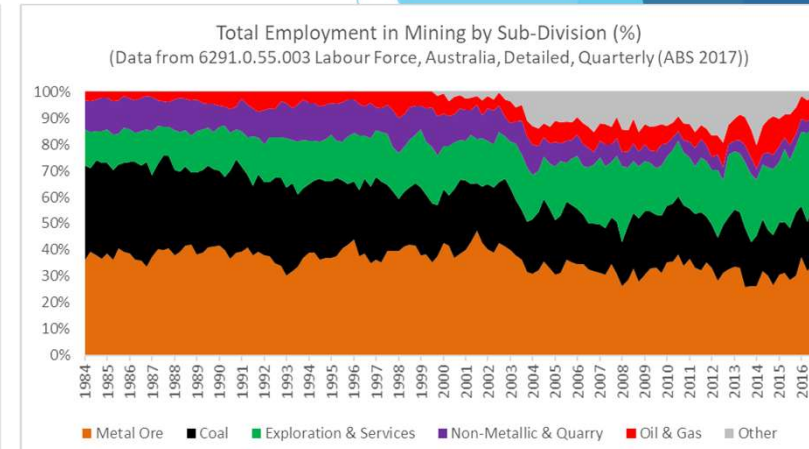
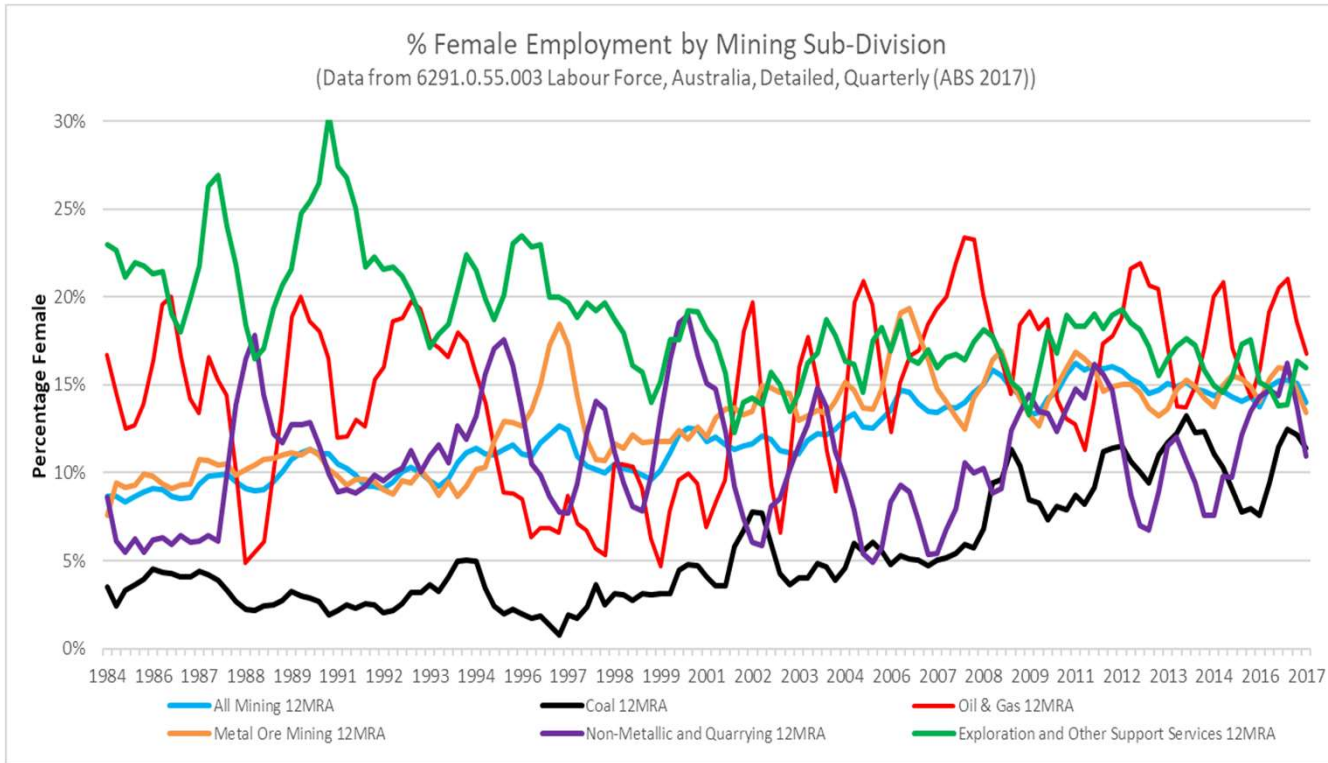
All
Australia

Mining

Is it Improving?



Do Mining sectors perform differently?



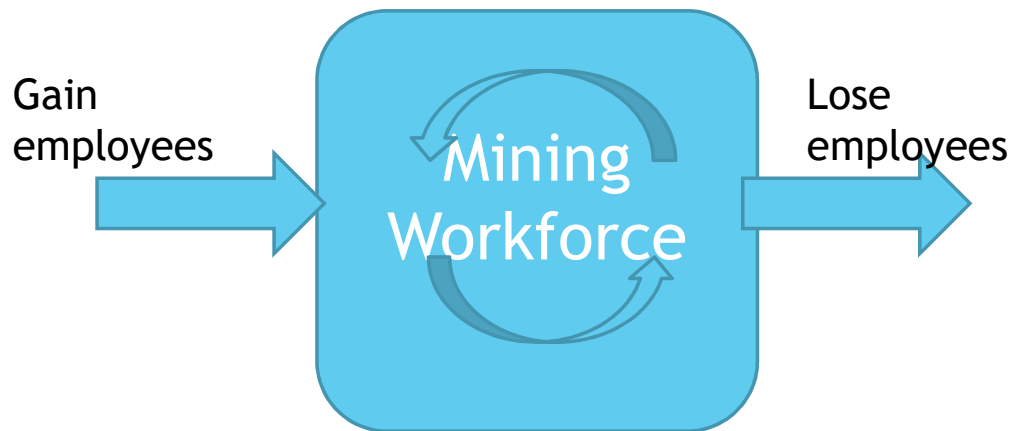
Key Points: Long term trends

- ▶ Australia has a gender segregated workforce
- ▶ Despite advances in female participation, limited change in segregation over 30+ years
 - ▶ Science, Construction - going backwards
 - ▶ Manufacturing, Wholesale going backwards - account for increased female employment
- ▶ Female employment in mining is low
- ▶ Has improved (slightly), accounting for increased Aust female employment
 - ▶ Mining has probably caught up to Construction
- ▶ Different mining sectors perform differently
- ▶ Female employment in Exploration and Services declining

Mining: Boom and Bust and How to Change your Workforce

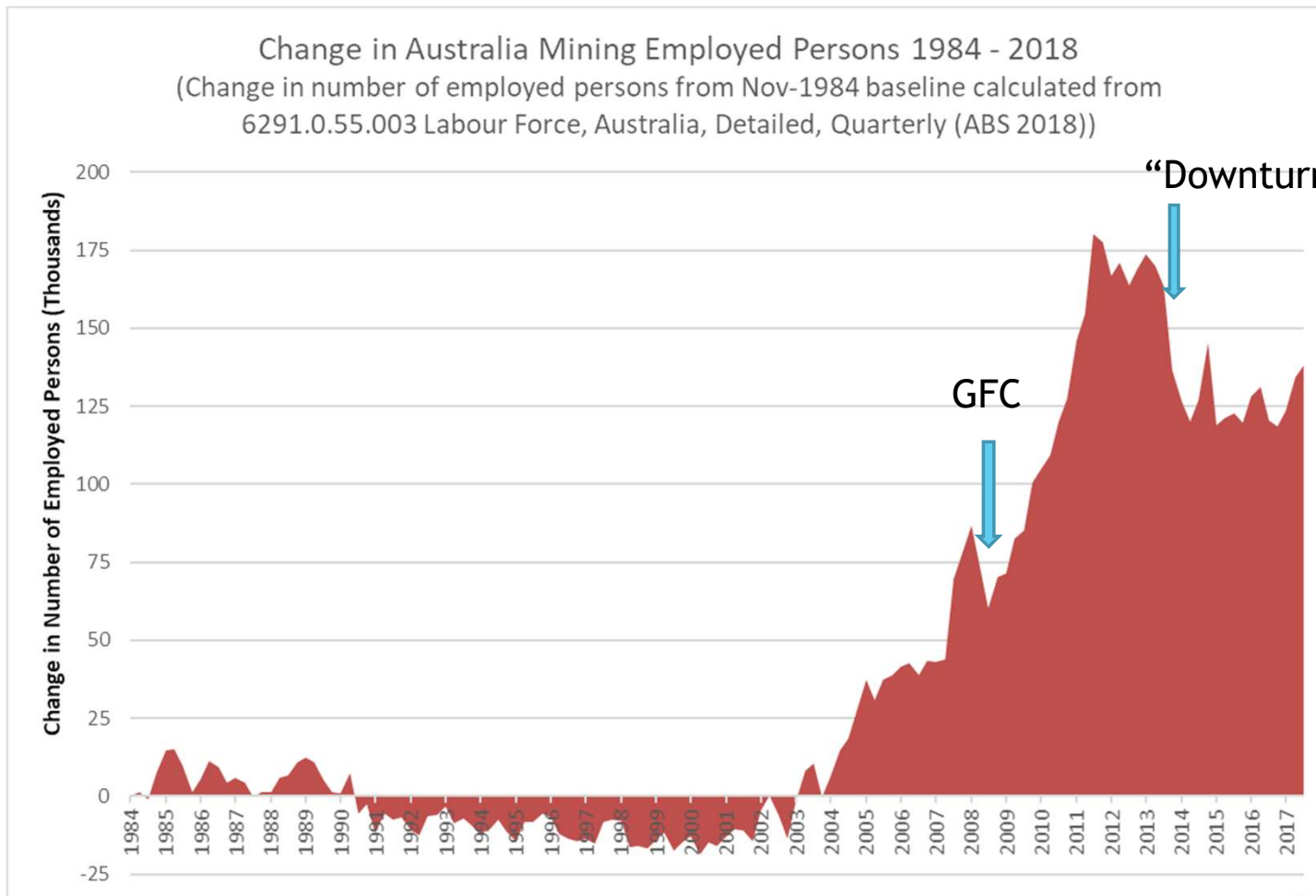


How to change your workforce?



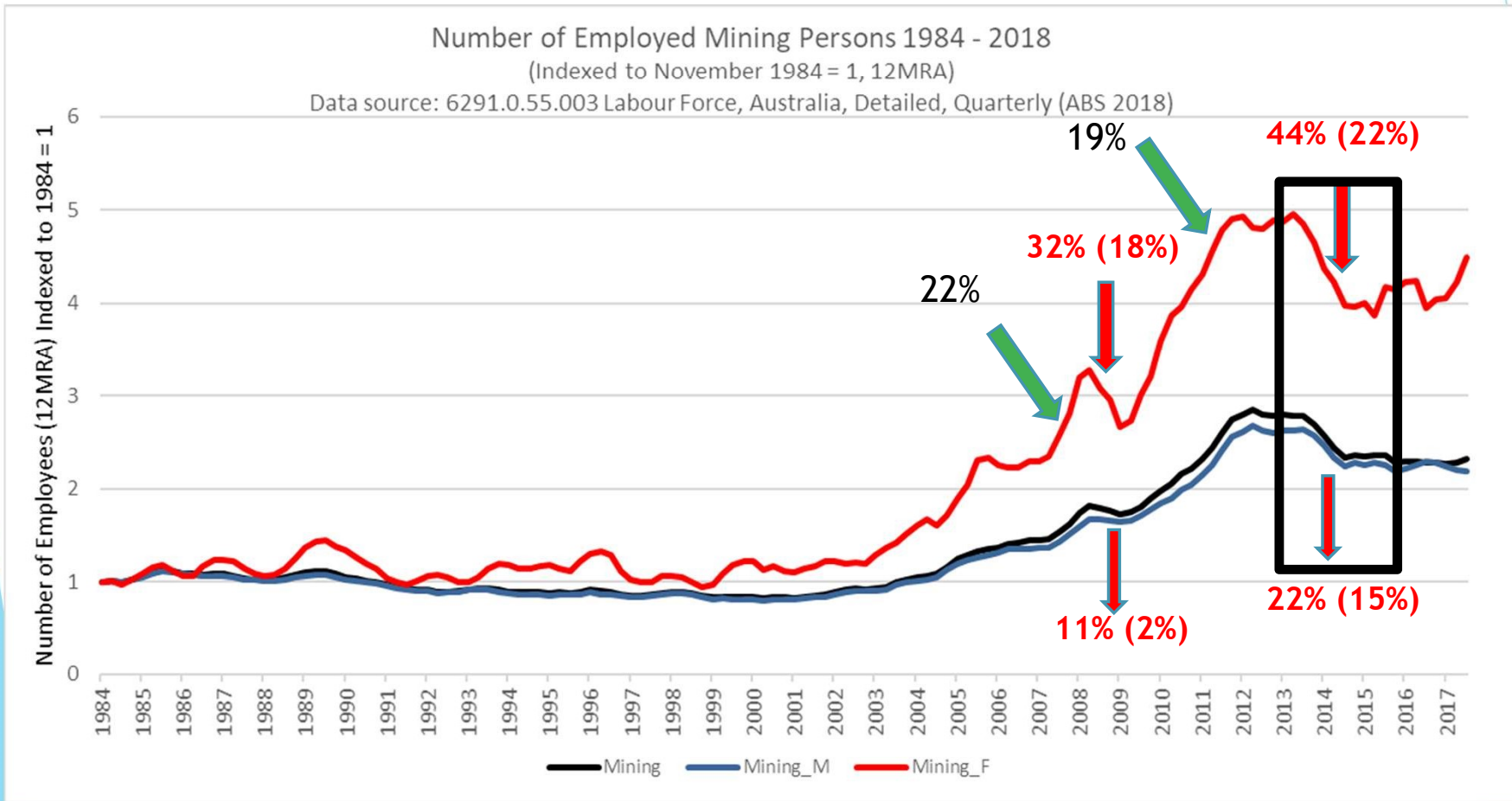
- ▶ Gain employees
 - ▶ Replacement & Growth
 - ▶ % Female in Labour Force and other characteristics
- ▶ Losses
 - ▶ Resignations & Redundancies
 - ▶ % Female existing workforce
- ▶ To Increase % Female:
 - ▶ % F gains > % F workforce > % F losses

Mining employment: boom and bust



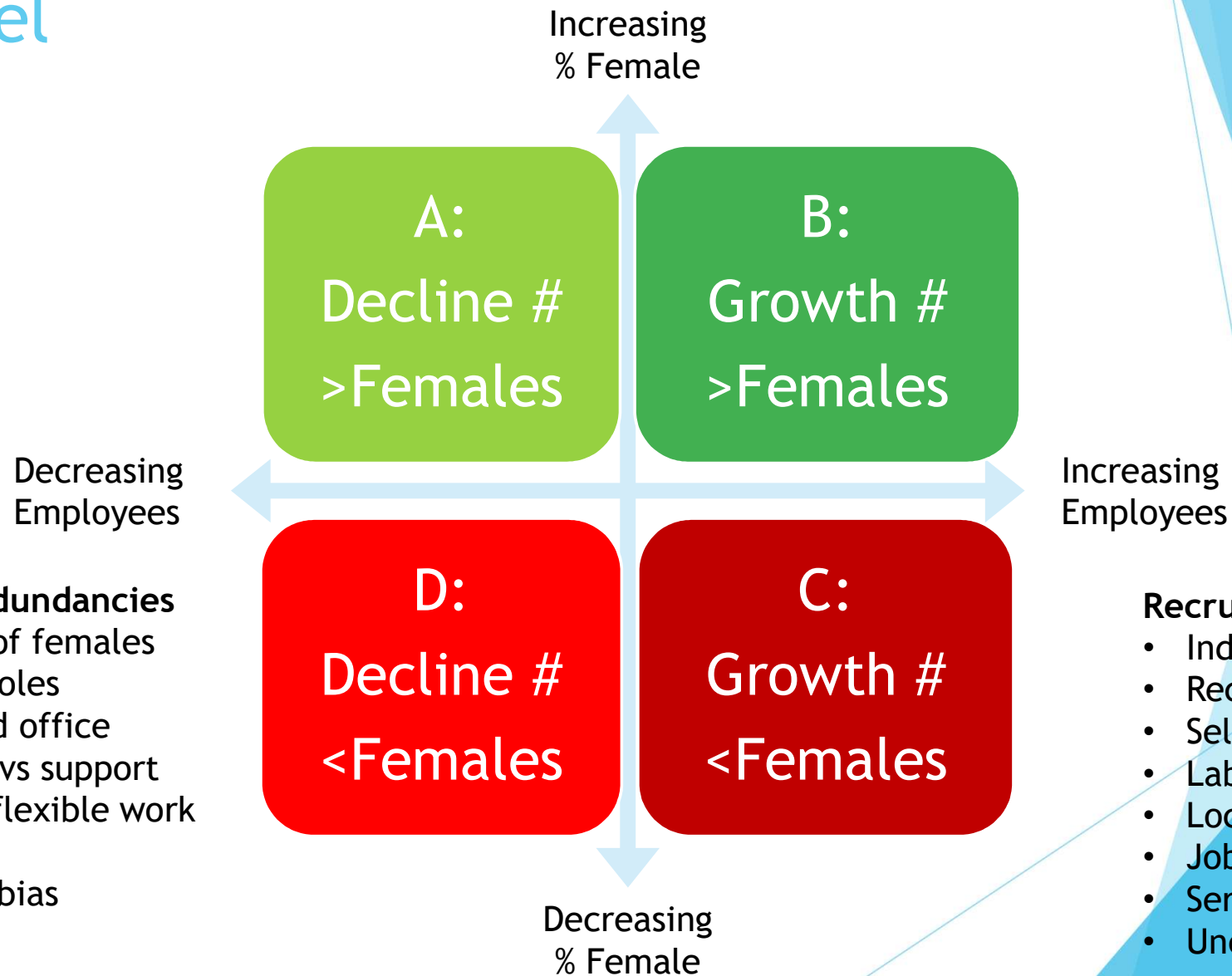
To Increase % Female:
% F gains >
% F workforce >
% F losses

How did the economic cycle affect females?



Percentages shown are % calculated from raw data and 12MRA (latter in brackets)

A model



Retention / Redundancies

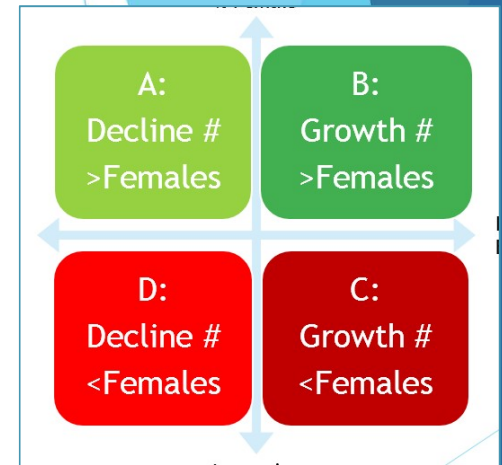
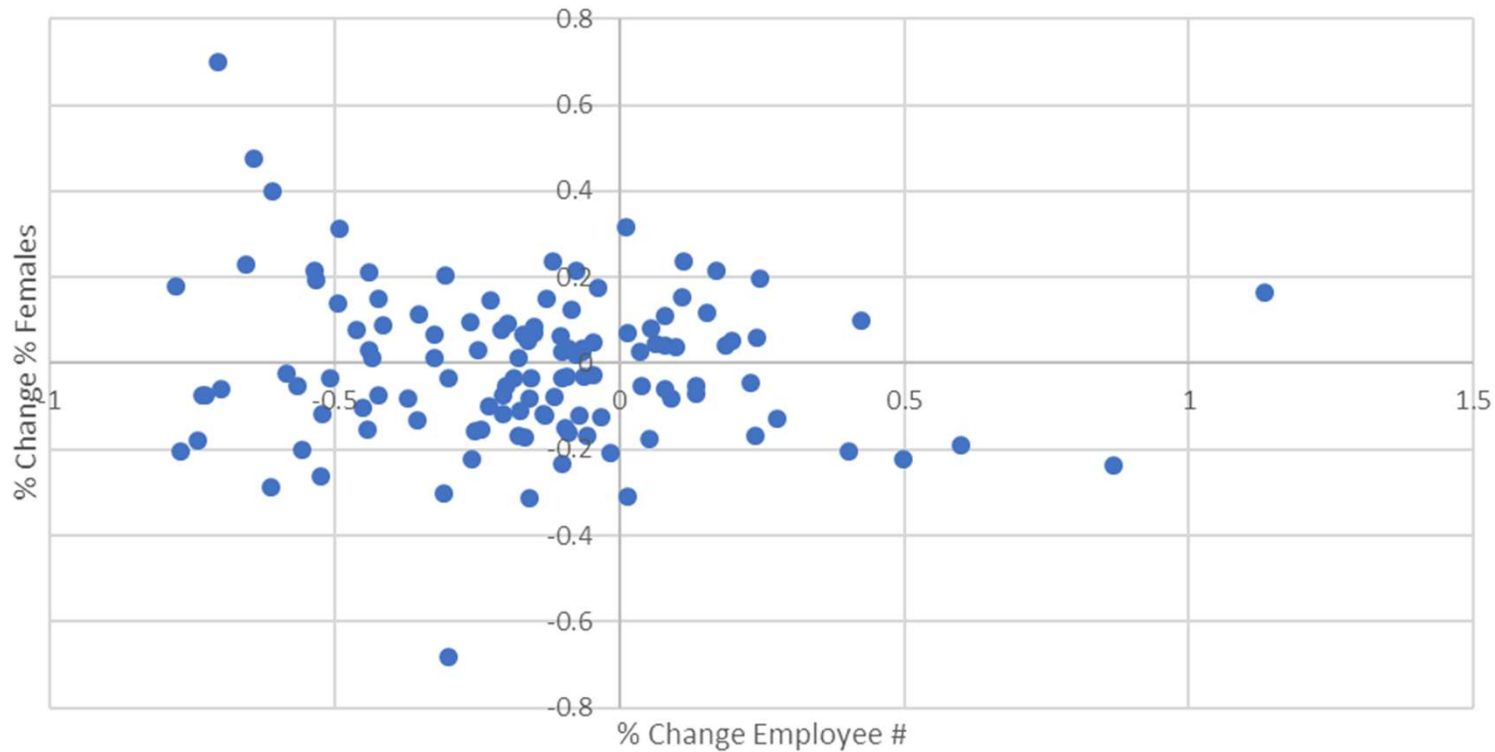
- Distribution of females
- Gendered roles
- Site vs head office
- Production vs support
- Part-time & flexible work
- Offshoring
- Unconscious bias

Recruitment & Attraction

- Industry Image
- Recruitment processes
- Selection criteria
- Labour force
- Location
- Job design
- Services
- Unconscious bias

Company performance varies

Employees vs % Female - two year change 2013-14 to 2015-16
 (calculated using WGEA (2017) 40+ employees, 1%+change, n = 119 + 1 point (442%,-44%) not shown due to scale)



Decline #, +ve %F	39
Growth #, +ve %F	18
Growth #, -ve %F	15
Decline #, -ve %F	48

Potential reasons?

- ▶ Culture, unconscious bias
- ▶ Females more likely to be part-time
- ▶ Higher % female in corporate offices than regional sites
 - ▶ Detailed data not available
- ▶ Workforce Composition
 - ▶ Comprise the majority of admin roles
 - ▶ Clustered in certain professional / “support” roles
 - ▶ Less likely to be trades, technicians, machine operators
 - ▶ Less likely to be in management

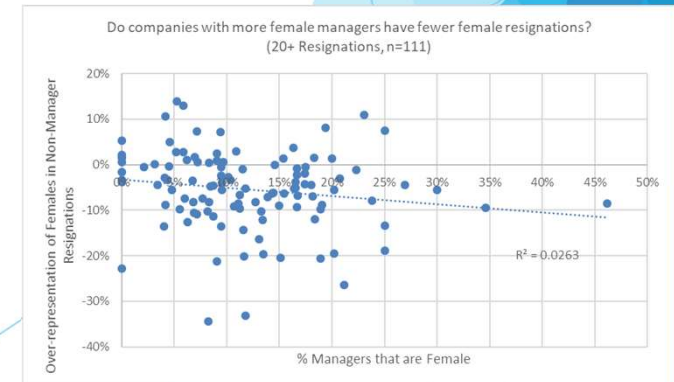
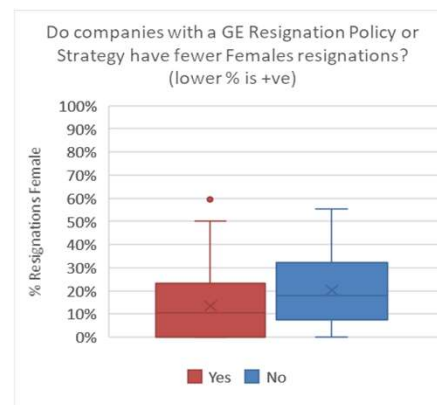
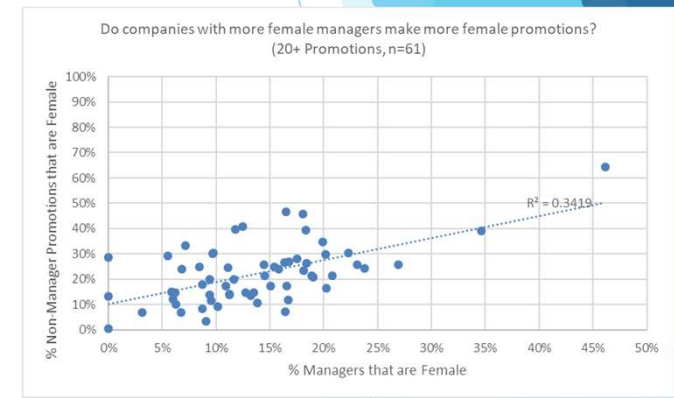
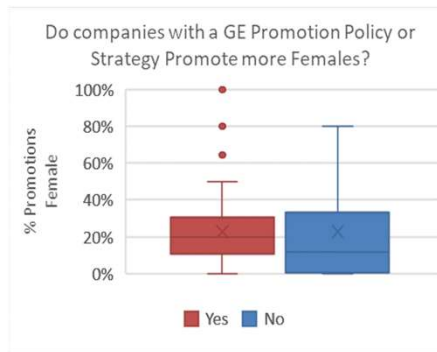
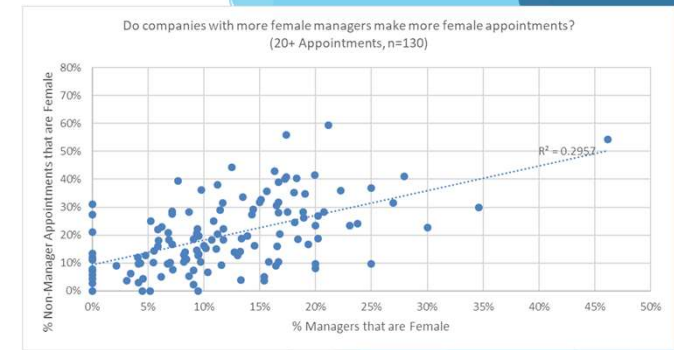
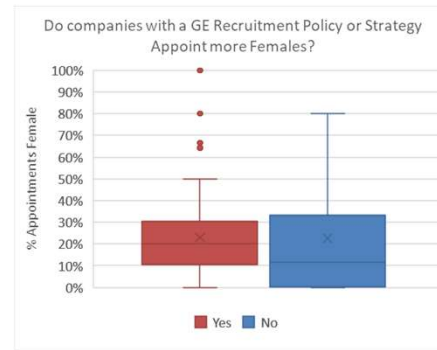
Maybe it's the role & how many?



Females have higher representation in non-production roles. Companies that decreased female employment reduced these roles disproportionately more, with uneven losses across role-types in their workforce.

What works?

- ▶ Most companies have strategies and gender equality initiatives
- ▶ No clear link between strategies and performance:
 - ▶ Time-lag?
 - ▶ Implementation issues?
 - ▶ Strategy effectiveness?
 - ▶ Probably still a good start
- ▶ % Females in Management significant relationship with appt and promotion performance - not resign
 - ▶ Cause vs effect?



Conclusions

- ▶ Mining has improved (slightly) but clearly male dominated)
- ▶ Female gains during boom but disproportionate loss during downturn
 - ▶ Female employment is more responsive to economic cycles
 - ▶ Failed to achieve step-change despite influx
 - ▶ Change within a stable, larger workforce harder
- ▶ Performance between companies varies
 - ▶ Those with more admin & prof do better, but roles lost during downturns
 - ▶ % Female simplistic, masks vulnerabilities
 - ▶ Need better distribution of females across roles
- ▶ No clear relationship between strategies and performance
- ▶ Significant relationship: % female mgr and non-mgr female appts and promotions

Further Research

- ▶ Construction declines, relationship to Mining?
- ▶ Case studies companies with dominant ABCD performance
- ▶ Strategies & policies vs implementation & effectiveness
- ▶ Remote site based vs corporate offices data collection
- ▶ Metrics for distribution of women in workforce
- ▶ How to improve distribution of women in workforce

- ▶ What will we achieve during this new upswing?

Questions?

Thank you to the Workplace Gender Equality Agency for providing the their dataset