

# Regional Unemployment Index (RUIN) May 2009

Prepared by Australian Development Strategies Pty Ltd

Sponsored by



# Background note

The report has been prepared as an ongoing attempt to learn more about the Australian economic downturn in terms of the changing profile of the unemployed, as it happens, to see if we can get some insights from looking at regional Labour Force units and their demographic composition. In other words, are richer Labour Force Regions affected differently by a recession? What about the poorer regions, or those reliant on agriculture, or mining, or coastal retirement areas? Who loses their jobs first? Are there any hints in the profiles to the elusive green shoots of recovery?

We started doing this sort of profiling in 1974 for State and Federal electorates and we think we have gained some insights into political behaviour as a result. Politicians think so too and the work has been progressively incorporated into political campaigns since the early eighties. That modelling now explains some 96 percent of the variance in votes across 150 electorates, which is a good deal better than the old fashioned electoral pendulums. Our unemployment modelling is now up to explaining some 85 percent of the variance in unemployment across 69 Labour Force Regions. We are cautiously optimistic we can improve on this figure and use it to obtain insights into other aspects of the economy.

We are working on the assumption that any significant regional economy with a growth in unemployment of more than 1.5 percent in the past 12 months is in recession. This definition also applies to Australia, which is now in recession and has been since April, according to this definition, which applies economics to people, rather than to economic indicators. Saul Eslake has written some interesting material on this definition.

We'd also like to know if profiling shows any sections of the workforce experience declines in employment at the early stages of a downturn, so the political process can be better informed in future about a possible recession before it happens, rather than nine months afterwards, as is the case with the use of quarterly GDP growth figures, which are subject to revision more than six months after they were first published. We are also trying to see if the Government's stimulus has had any disproportionate effect on demographic groups and what possible political impacts there are for the Government in the future from the downturn and the stimulus.

It's basically an educational and public relations exercise and has not been designed as an advisory tool for business and we take no responsibility for those who use it for these purposes. The sampling errors for smaller Labour Force regions are large and there's statistical significance of the profiles to be considered on top of that. We will however be doing additional and more complex analysis for our regular business clients, including modelling the unemployment figures down to CD levels and tracking links between unemployment, and a range of other economic trends, such as home loan pressures and house and land prices and private school and university enrolments.



This paper looks at the comparison of monthly unemployment rates in 69 Labour Force regions, across Australia, and benchmarks these percentage figures against our Elaborate database. Data for these new regions was available for the first time in February and dates from November 2007.

We hope it is of some value to the political process now and in the future. And we thank the Local Government Association of Queensland for their sponsorship of the project, John Lockwood for his patience with the statistics, and Kevin Harris for his geographical insights over the past 35 years. We also hope it encourages more kids to want to learn about geography and statistics.



# Summary of Results

## Reading the report

From the top, we have included some stereotype charts, which are a handy demographic snapshot of changes during the past 12 months. Then we have the Correlation charts, which are the main substance of the report. The things to watch for include possible impacts of the Government's financial stimulus which seems to have worked favourably on lower income groups, and demographic variables running parallel with the increase in unemployment. The latter have so far been the high SES groups, as well as migrants (whatever their SES) and the internationally exposed tourism industry. For example, when tourist numbers declined from Japan, we saw a rise in the unemployment profile from Japanese born persons, Japanese speakers and Buddhists. We always try to look for these multiple links and burrow back up the causal chain to infer some sort of economic drivers. We stress we are looking at inferential statistics here and weaker correlations have a stronger likelihood of being due simply to chance factors.

Finally we include the Regional Unemployment Index which presents the increases and falls in unemployment across all regions from May 08 to May 09 and from 2008 to 2009. We have included the latter as a cross check, because it helps to cut down sampling error from smaller regions. Those regions with the worst unemployment gains will tend to contain those groups in Stereotype Table 1. The regions with the unemployment reductions will tend to be in Stereotype Table 2. A profile simply organizes real data in a systematic and objective way to see things we often miss by looking at a national summary with our own personal biases about what we expect to see.

For example, we expected to see the poorer and less well educated regions hit first in the downturn. We didn't. In fact we found the reverse, as we see in the first chart. In the next monthly report we will deal with these issues in more detail.

## The Unemployment Profiles - Education

The big group of Government school parents have been hanging onto their jobs. As unemployment has risen nationally it has risen disproportionately in Labour Force regions dominated by medium to high SES parents, raising their unemployment profile and reducing that for mainstream middle income parents sending their children to Government schools. The wealthier independent school parents have been marking time, while parents of the lower fee Catholic school system have been bearing the brunt of the downturn.

When we slice and dice these groups further, according to fees, we see that the Catholic school parents under most unemployment stress are those paying fees at the upper end of the fee ranges for Catholic schools. This parental income group blends into that for private primary school parents at the lower end of their fee ranges, where we also signs of unemployment stress.

Parents alienated from the Government school system tend to put their children into the Catholic school system and then move their children from there into the marginally more expensive private school system at around Year 5, as these parents regain a second income and get their mortgage under control. What we are seeing here is that most unemployment pressure is now being felt by that parent group, which should result in kids being held back in Catholic schools around these middle years, at the expense of the private school system, particularly around the middle Years 4-7.

The completed schooling chart confirms these trends. Completing Year 12 is pretty handy for longer term job security, but it has proved to be a handicap in the early stages of the current recession. Fields of Study charts show those who studied education or health and secured jobs in the public sector have been unaffected by the downturn. If they're paying off a house, their incomes would even have improved, as mortgage rates have fallen. The graduates hardest hit in the downturn have been those who studied IT, Management and Commerce or Creative Arts.

The Graduate chart shows the best qualification to have in the early stages of an economic downturn is a certificate from a TAFE college, as the better paid University graduates are among the first to be put off from their jobs.

### **Age, Gender and Children**

Younger couples, up to 20-44 have been the first to lose their jobs, at least to May. This applies especially if they have no children. Perhaps these couples seek riskier job profiles. Whatever the reason, it's no kid: no job. This is the reverse of the situation which normally applies in better economic times. Marital status has made no significant difference to unemployment status changes.

### **Income**

In the 12 months to May 09 there were some significant improvements in the employment profile of families in the bottom half of the income range and commensurate declines in the top half. The rich get sacked first. Presumably because they're paid more and they are on more informal wage structures.

## **Birthplace, Religion and Language**

Australian born persons have been treated comparatively well so far by the recession, as have most mainstream protestant religions. The reverse is the case for migrants and Catholics who seem to find themselves in more white-collar third-quartile jobs. They are doing it tough.

## **Industry and Occupation**

The recession continued to hit full time jobs for women and saw them replaced with part time employment. Male Clerical and Sales jobs were lost, as were female jobs in the big clerical group. We are looking to see a stabilization in the job losses for professionals and clerical workers before we have confidence that the recession is beginning to get under some sort of control.

In terms of industry profiles, agriculture, mining and utilities are withstanding the widespread national loss of jobs, while the skilled white collar industries, such as finance, the media, consulting and real estate have been badly hit. Females in the more public sector oriented industries of Health and Education are faring well. A degree certainly doesn't hurt there.

## **Home and Family.**

Generally speaking, home owners have fared well, but not so renters. Families paying high mortgages or rent have fared the worst, with improvements in the jobless profile for the bottom two quartiles. There's no doubt, from this and other data, that this trend is propping up house prices in the bottom two quartiles and depressing them in the top quartiles. The third quartile mortgage group has been particularly hard hit by the recession and totally unaffected by lower interest rates or by the fiscal stimulus. This overlaps with the Catholic religion and education groups referred to earlier. There is some genuine pain here, especially for single parents with older children.

The family budget charts show the recession has hit those families with higher mortgage commitments, with unemployment replacing interest rates as the big driver for home loan arrears.

# Stereotypes

Basically we present here the simple correlation between our database, shown at left of the following tables in summary form, and the figures for unemployment by region. We feature in these tables the change in the profiles between May 08 and May 09. Also included are National Means for each variable, recent profile results for Home Loan Arrears, ALP Two Party Preferred votes in 2007, the swing to the ALP in 2007 and the 2007 Green Primary votes.

The correlations have been ranked to show those correlations which are significant to 99 percent or more. In other words, there's only a one percent probability the correlations are due to chance. The higher the correlation, plus or minus, the less the probability it is due to chance and when it's over plus or minus 0.30 there's only a one percent probability it is due to chance.

We really can only say that a high positive correlation means that the group in question live in regions of high unemployment growth – they aren't unemployed because they are in a specific group.



Code	Unem May 2008	Unem May 2009	May 09 minus May 08	Aust Means (RHS)	90 Day Arrears	ALP 2PP 2007	2PP Swing 04- 07 to ALP	Green Primary 2007
Thailand	-0.08	0.36	0.43	0.10	0.59	0.39	-0.22	0.47
Spanish	0.11	0.50	0.42	0.41	0.76	0.50	0.06	0.03
fThailand	-0.13	0.30	0.41	0.19	0.55	0.37	-0.25	0.48
fSpanish	0.11	0.48	0.40	0.44	0.76	0.49	0.06	0.02
Elsewhere	0.02	0.40	0.40	3.22	0.74	0.48	-0.07	0.15
fElsewhere	-0.01	0.38	0.39	3.26	0.76	0.44	-0.08	0.15
fBuddhism	0.14	0.47	0.37	1.95	0.63	0.46	-0.09	0.12
Buddhism	0.15	0.47	0.36	1.74	0.64	0.46	-0.08	0.09
fAdmin consulting	-0.07	0.29	0.36	3.50	0.44	0.40	-0.04	0.20
fMedia	-0.26	0.13	0.35	1.65	0.18	0.23	-0.27	0.59
f35-39 one kid	-0.27	0.12	0.35	1.36	0.42	0.39	-0.05	0.42
fSerbian	0.20	0.49	0.34	0.23	0.66	0.40	0.02	-0.05
f30-34	-0.27	0.11	0.34	7.07	0.56	0.44	-0.14	0.41
Vietnam	0.19	0.48	0.34	0.65	0.62	0.46	-0.04	-0.02
fVietnam	0.18	0.47	0.34	0.74	0.62	0.46	-0.04	0.00
fVietnamese	0.18	0.47	0.33	0.85	0.61	0.46	-0.03	-0.02
Serbian	0.20	0.48	0.33	0.23	0.67	0.39	0.03	-0.06
Mort \$2000-2999	-0.15	0.21	0.33	13.19	0.68	0.19	-0.06	0.31
Vietnamese	0.19	0.47	0.33	0.81	0.61	0.46	-0.02	-0.03
Mort \$1600-1999	-0.02	0.31	0.33	11.06	0.70	0.45	0.20	0.09
fCroatia	0.15	0.44	0.33	0.23	0.69	0.46	-0.01	0.00
Croatia	0.15	0.44	0.33	0.25	0.68	0.44	-0.02	-0.03
Commute three methods	-0.17	0.18	0.32	0.31	0.49	0.35	-0.03	0.15

**Table 1** shows the demographic groups which have suffered the biggest declines in their unemployment profiles from May 08 to May 09. Also shown are the Australian means for each variable and some recent profiling results for each variable. The regions which correspond to these profiles are included at end of the document at the top of the RUIN index.

The table is dominated by migrants and skilled white collar workers in Admin and the Media and their profile shows them to be in recent home loan arrears pressure and they are solid Labor voters. With a hint of Green.





Code	Unem May 2008	Unem May 2009	May 09 minus May 08	Aust Means (RHS)	90 Day Arrears	ALP 2PP 2007	2PP Swing 04- 07 to ALP	Green Primary 2007
fosfHealth	0.03	-0.40	-0.44	14.26	-0.60	-0.60	-0.02	-0.13
fUniting	0.08	-0.29	-0.38	6.40	-0.65	-0.44	0.21	-0.32
Uniting	0.09	-0.28	-0.38	5.47	-0.62	-0.45	0.21	-0.34
fAustralia	0.03	-0.33	-0.36	73.68	-0.54	-0.41	0.12	-0.19
Australia	0.04	-0.31	-0.35	71.86	-0.54	-0.42	0.16	-0.28
Other Tenure	-0.01	-0.34	-0.35	0.90	-0.53	-0.50	-0.03	-0.22
fosfAgriculture & Environment	0.01	-0.32	-0.34	1.54	-0.54	-0.45	0.00	-0.28
Mort \$750-949	0.24	-0.14	-0.33	9.83	-0.57	-0.11	0.09	-0.32
fosfEducation	-0.04	-0.34	-0.33	11.81	-0.55	-0.65	0.01	-0.18
fEducation	-0.07	-0.37	-0.33	11.35	-0.49	-0.32	-0.18	0.26
fHealth & social assist	0.20	-0.16	-0.32	17.89	-0.25	-0.05	0.01	0.00
f45-49 three kids	0.17	-0.17	-0.32	2.06	-0.33	-0.46	0.22	-0.53
50-54	0.09	-0.24	-0.31	6.78	-0.41	-0.48	0.04	-0.20
Mort \$550-749	0.17	-0.17	-0.31	8.06	-0.53	-0.19	0.02	-0.26
fEnglish	-0.07	-0.36	-0.30	79.89	-0.54	-0.56	0.06	-0.14
Mort \$1-249	0.07	-0.25	-0.30	2.75	-0.59	-0.20	-0.08	-0.11
English	-0.07	-0.35	-0.30	79.62	-0.53	-0.56	0.06	-0.14
Rent \$0-49	-0.06	-0.33	-0.30	9.46	-0.49	-0.41	-0.04	-0.30
Employed/away from work	-0.21	-0.45	-0.30	2.03	-0.51	-0.36	-0.12	-0.01
Rent \$100-139	0.14	-0.18	-0.29	11.11	-0.41	-0.23	-0.04	-0.21
fAgriculture\ forestry & fishing	0.02	-0.26	-0.29	4.06	-0.41	-0.48	-0.01	-0.35
fYear 11	0.10	-0.20	-0.29	9.95	-0.44	-0.21	0.05	-0.21
fLutheran	0.04	-0.24	-0.29	1.44	-0.37	-0.21	0.28	-0.23
f60-64 three kids	0.26	-0.07	-0.29	1.55	-0.58	-0.54	0.10	-0.37

**Table 2** shows the demographic groups which have experienced an improvement in their unemployment profiles from May 08 to May 09. We see a lot of big mainstream groups in this chart, which is consistent with the continued strong national showing of the Government in opinion polls. For example, any Government seeking re-election could do a lot worse than have the support of the Australian born. It's a handy leg up. By and large the groups which have improved their position are not suffering any mortgage stress, which isn't really a surprise. We also see here lower mortgages, public servants, primary industry, miners and some of the more activist conservative religions which swung to the Government in 2007.



# Correlation charts

Correlation charts should be read the same way as the worm debating chart – the zero line is neutral and the score heightens as the correlation increases its distance above or below the zero line. Correlations above the line indicate a positive relationship and correlations below the line show a negative relationship. The significance levels vary according to the number of pairs and we would advise the reader not to get too excited about any correlations below plus or minus 0.25.

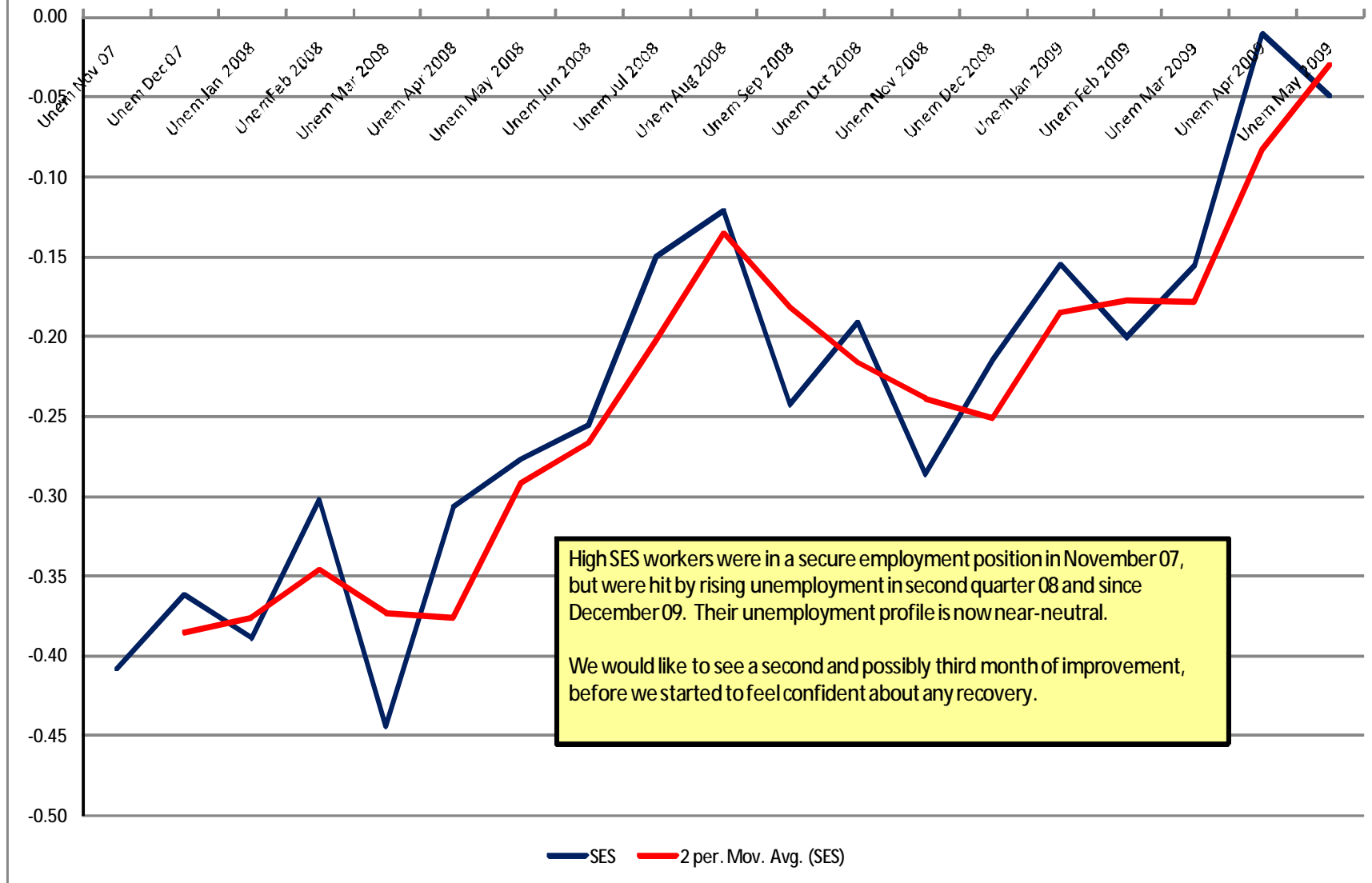
Similarly, the reader should be cautious about high correlations from variables with a very low mean, from the more esoteric religions, or unusual countries of birth or languages spoken at home. This is an arbitrary call, but, if it's less than about half of one percent of the population, it's usually pretty meaningless. **In summary, we are looking in the charts for longer vertical bars or trend lines, above or below 0.25, consistent patterns across each chart and big population numbers.** The corresponding national means for each variable are shown on the right hand axis.

The descriptive information for each chart will tend to be found in the explanatory boxes within the charts themselves, with the important ones highlighted in colour.

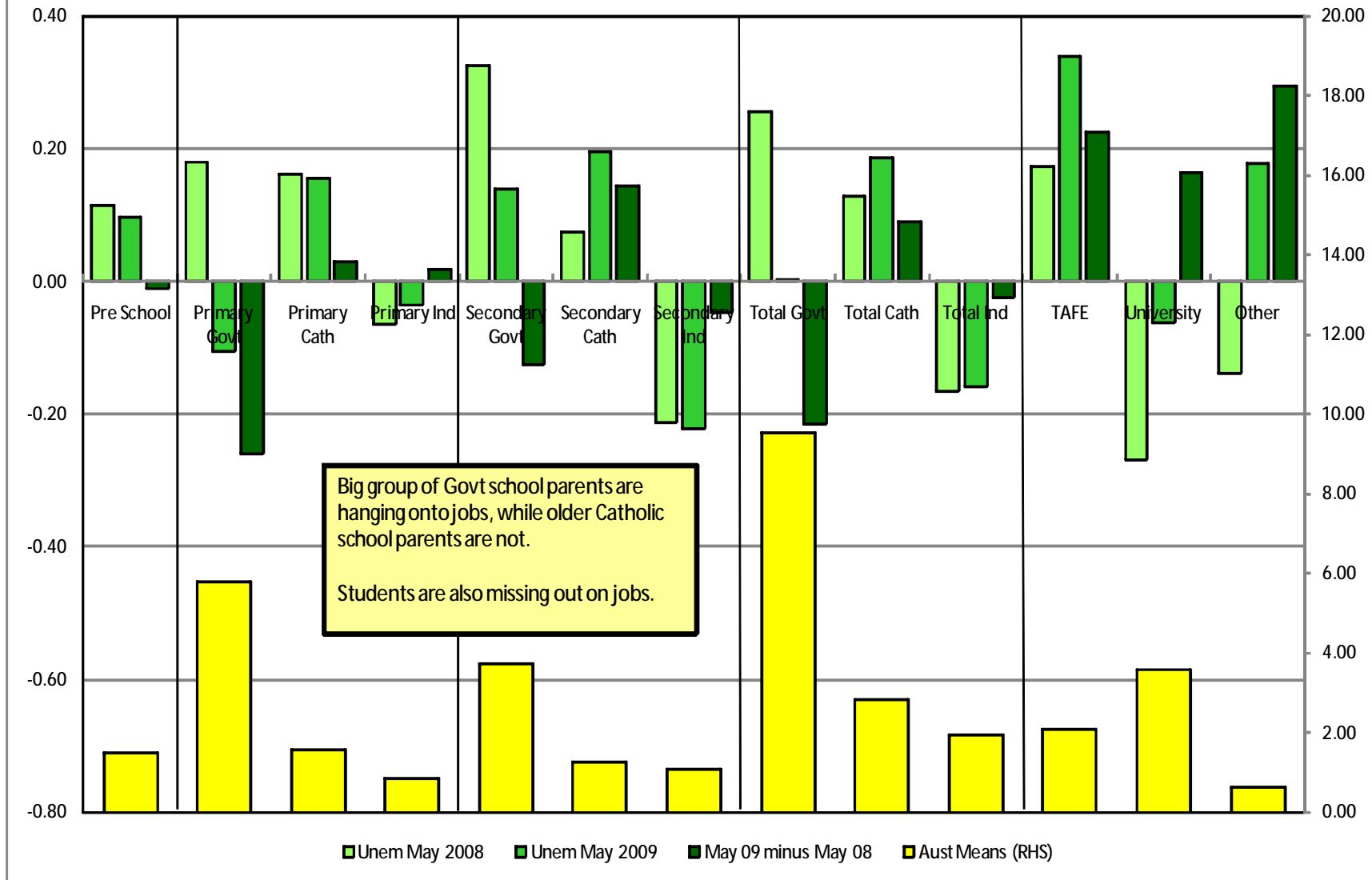
If the stereotype tables are snapshots, the following charts can be seen as small pictures, which can then be combined to make up a fine-grained demographic portrait or collage of unemployed Australians. We emphasize that we're looking here at what happened to the actual jobless figures, in terms of who lives in areas where unemployment is growing or declining, we're not looking survey results from an opinion poll, so causality has to be inferred.

We should also bear in mind that there's a large element of sampling error in these ABS Labour Force stats when they are broken down into smaller regional units and this error is magnified by profiling. So caution is advised and any findings of interest should be confirmed wherever possible by cross references to other data. We've done this where time has permitted and we think the material is sufficiently useful and timely to warrant the effort. There's certainly an interesting story trying to get out from under the bland aggregates of any national data set and the Labour Force figures are no exception.

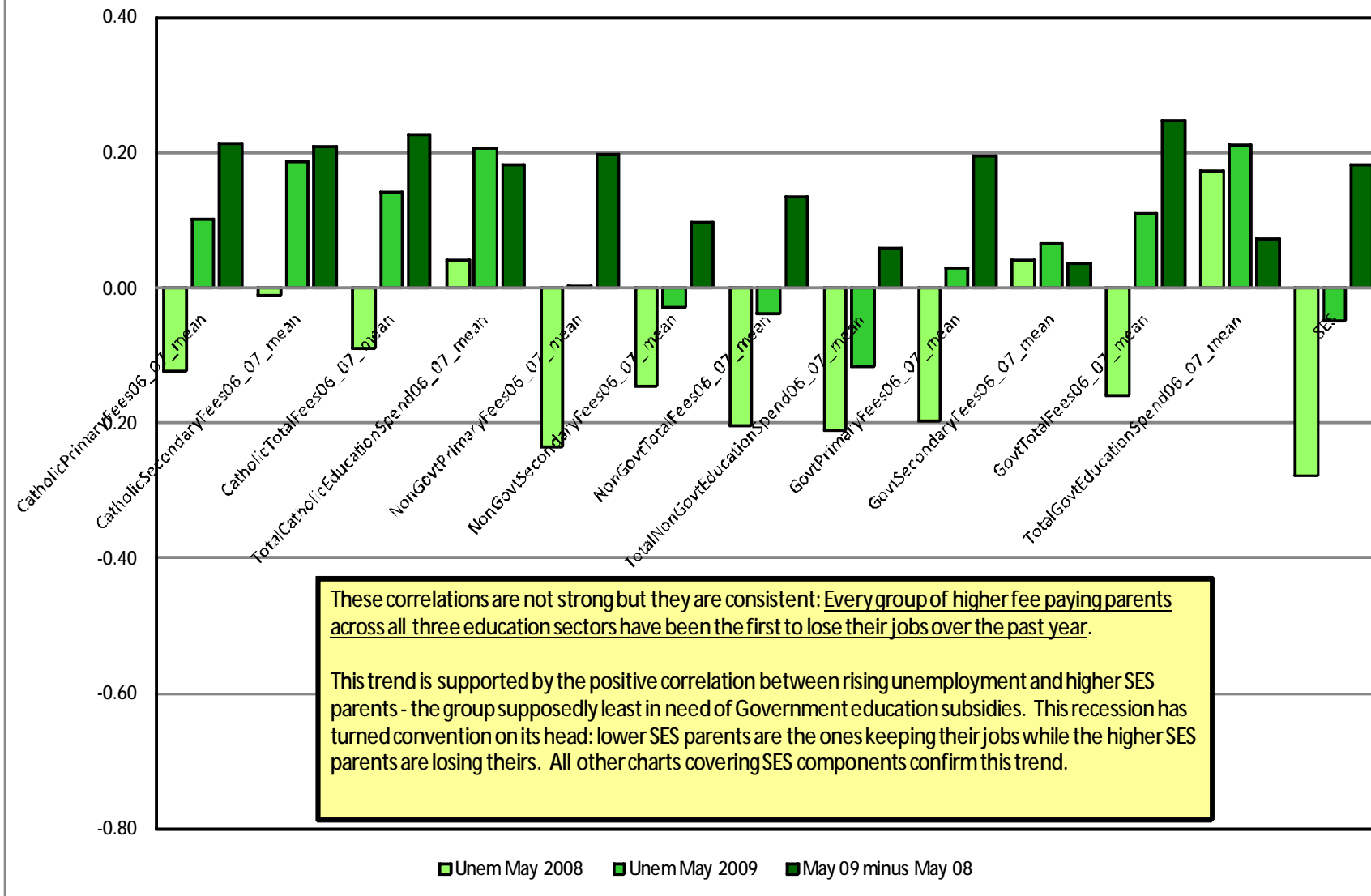
## Rising unemployment profile for high SES workers



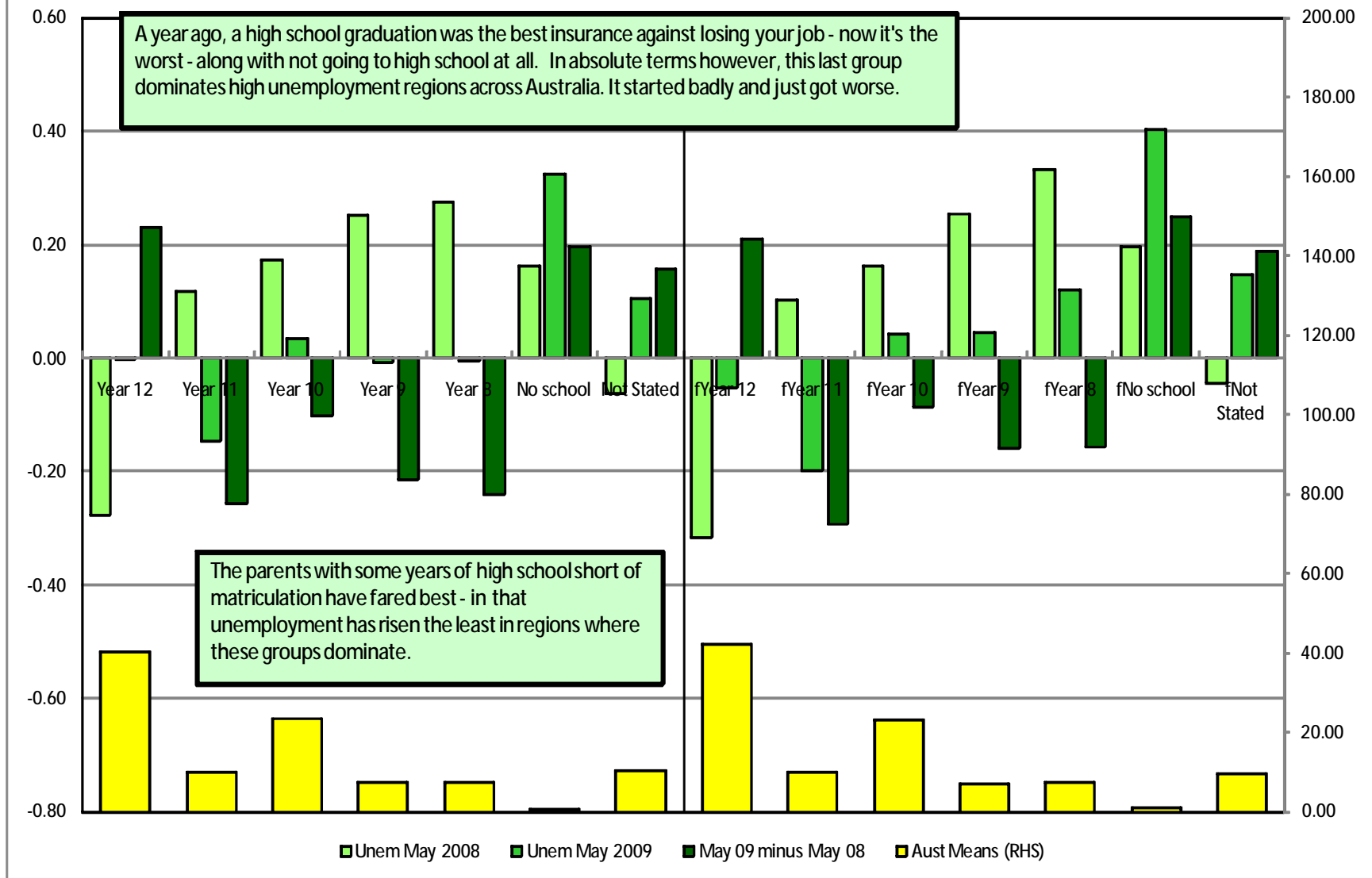
# Current Education



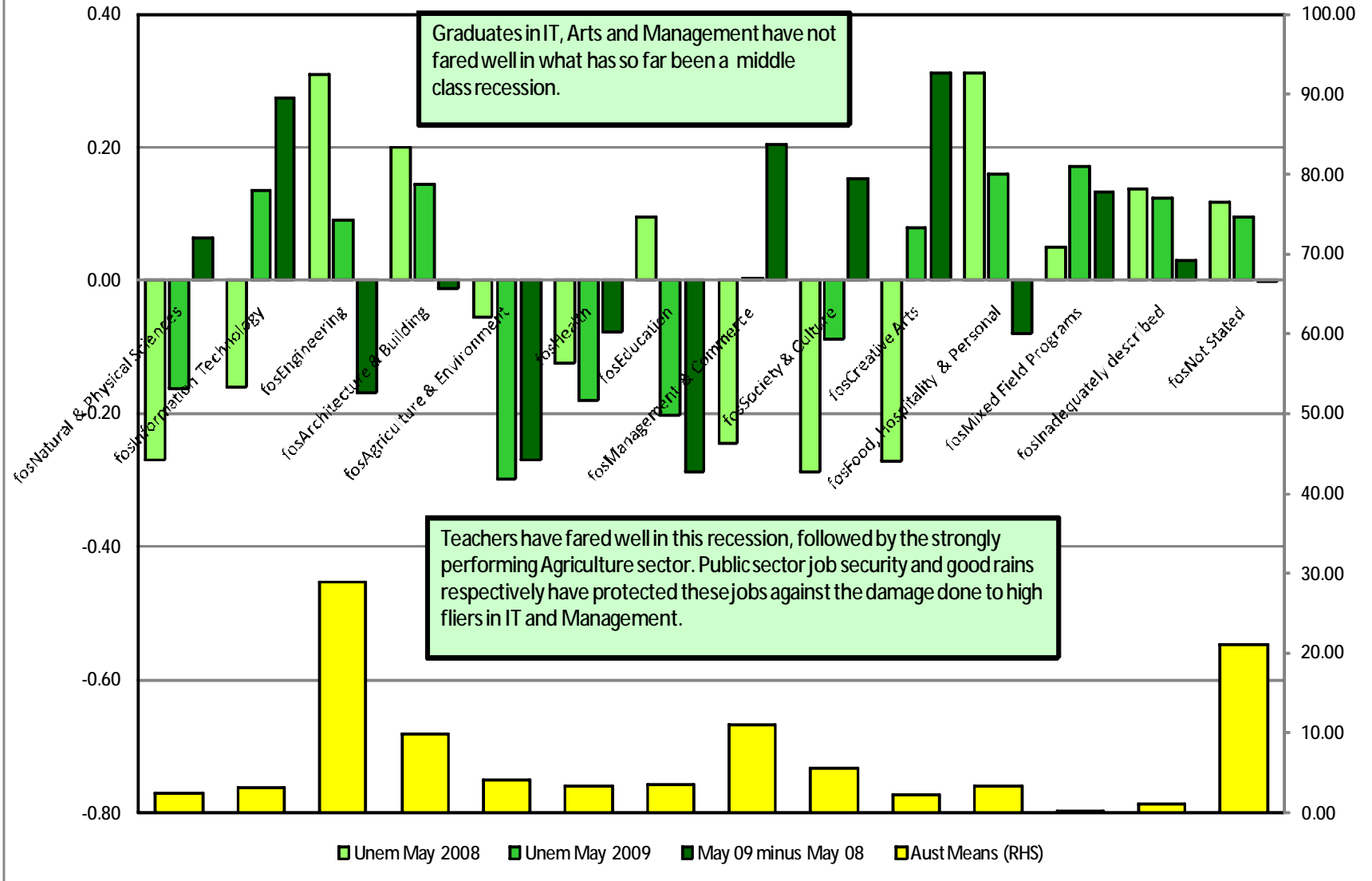
## School Fees & SES



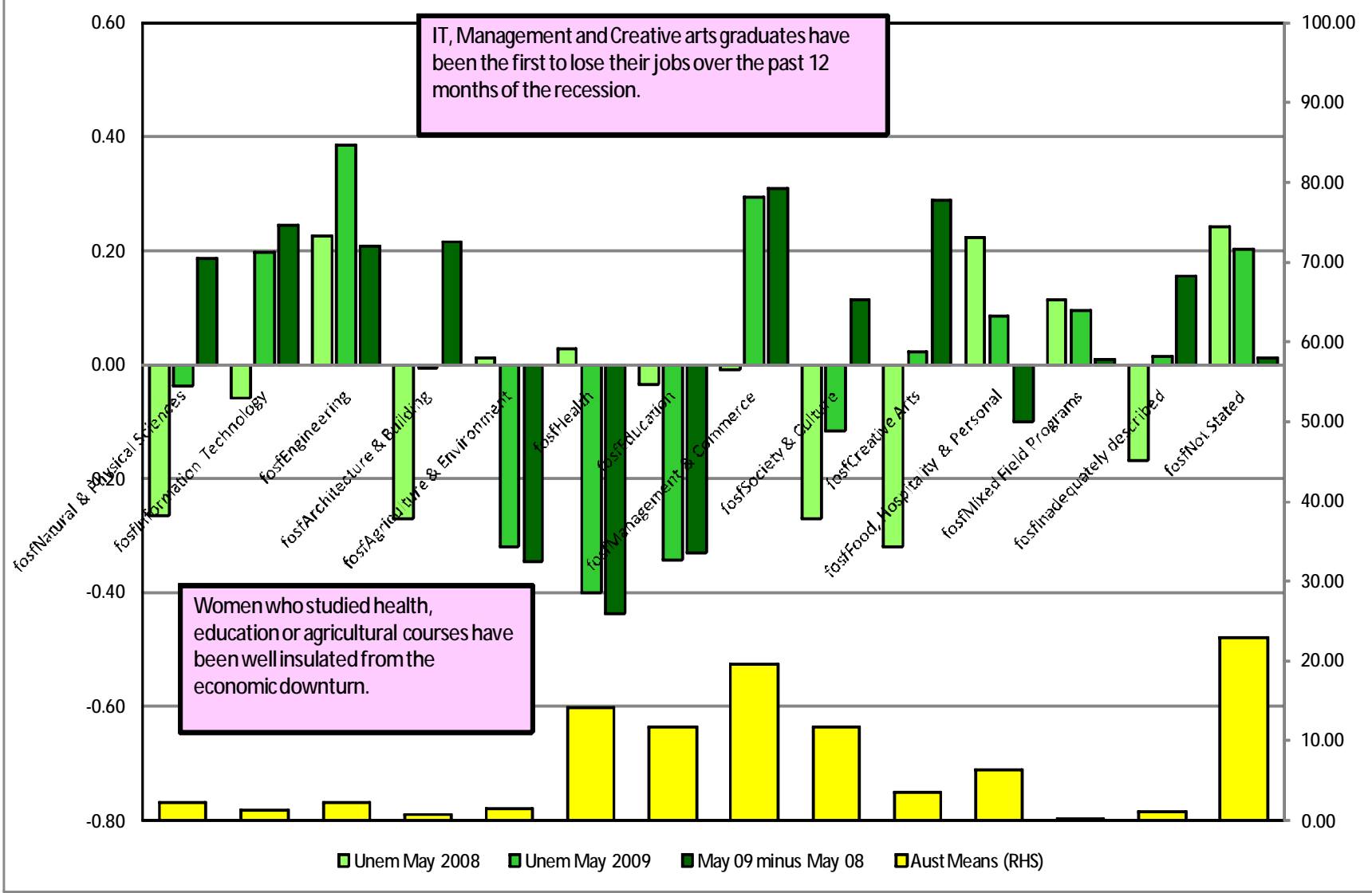
## Schooling Completed Male & Female



## Field of Study Male

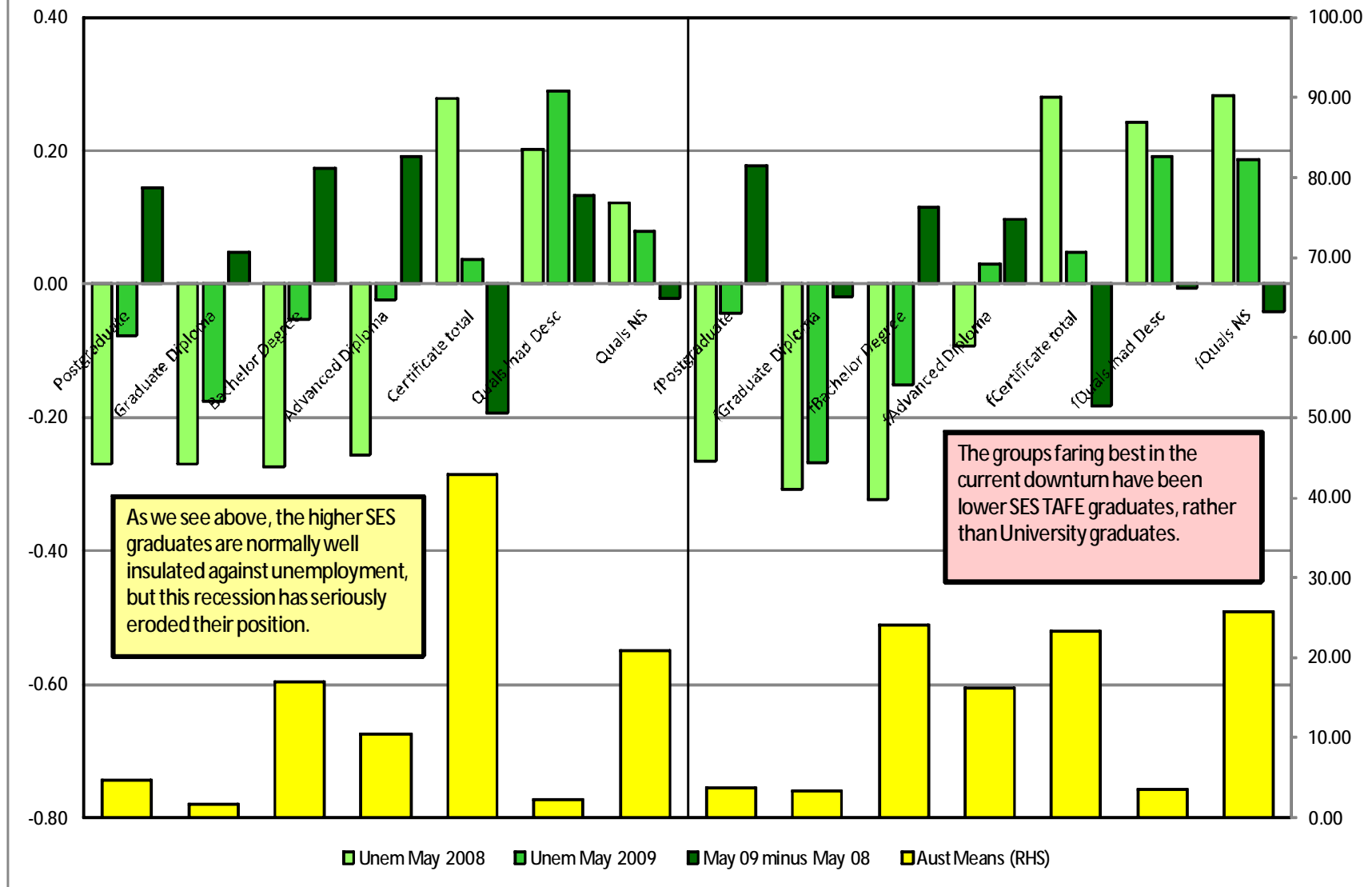


## Field of Study Female





## Qualifications Male & Female

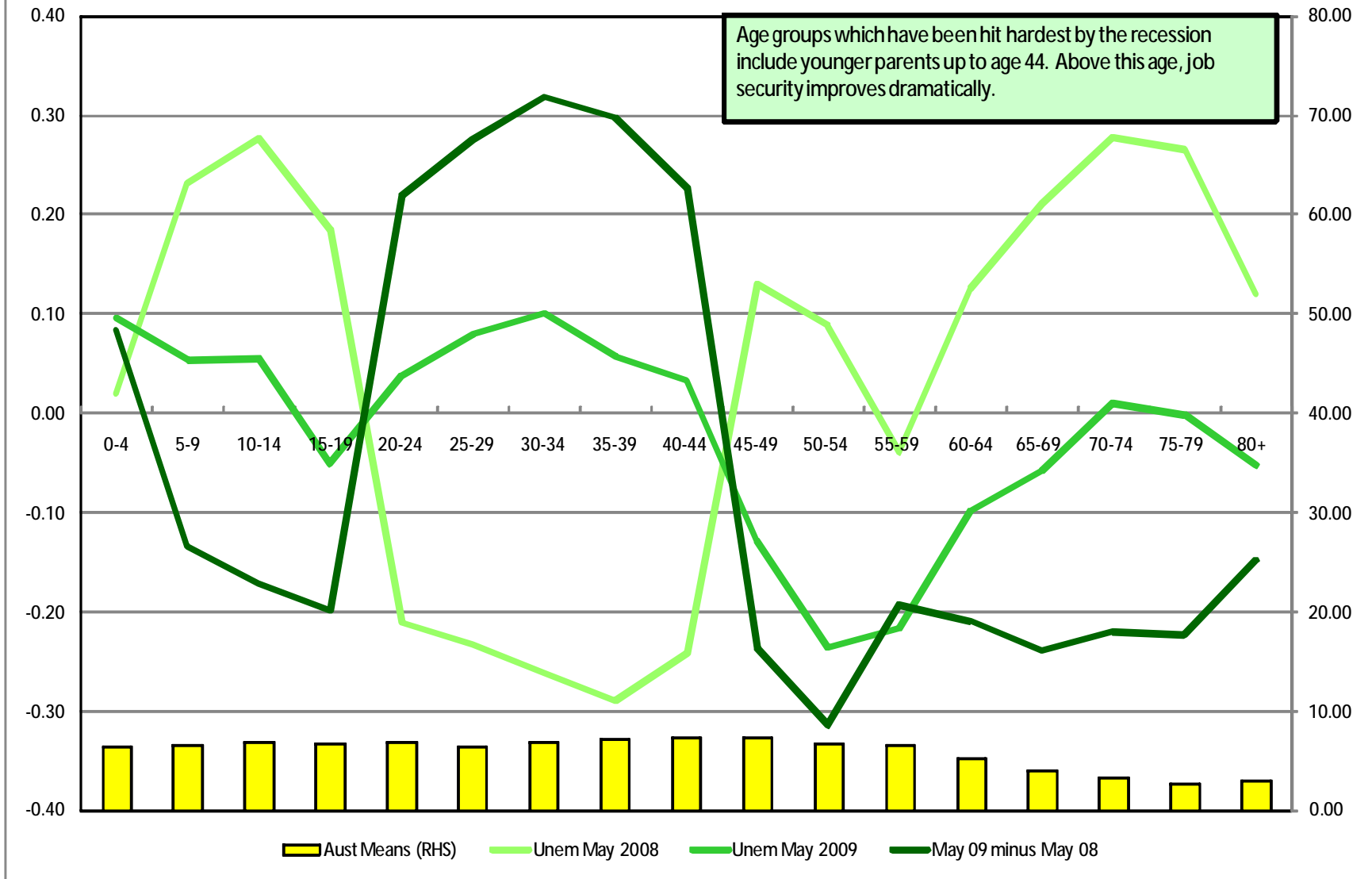


As we see above, the higher SES graduates are normally well insulated against unemployment, but this recession has seriously eroded their position.

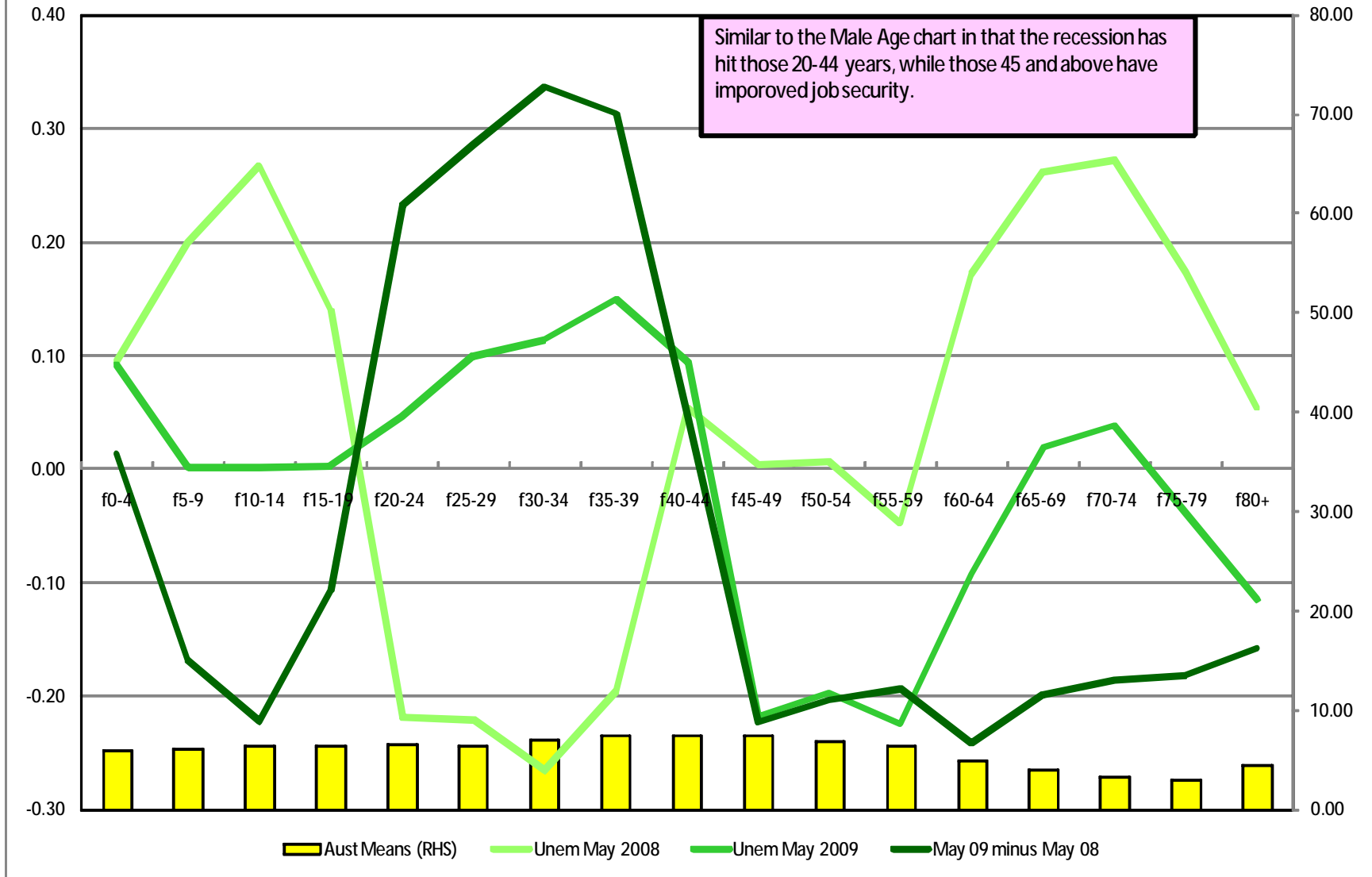
The groups faring best in the current downturn have been lower SES TAFE graduates, rather than University graduates.



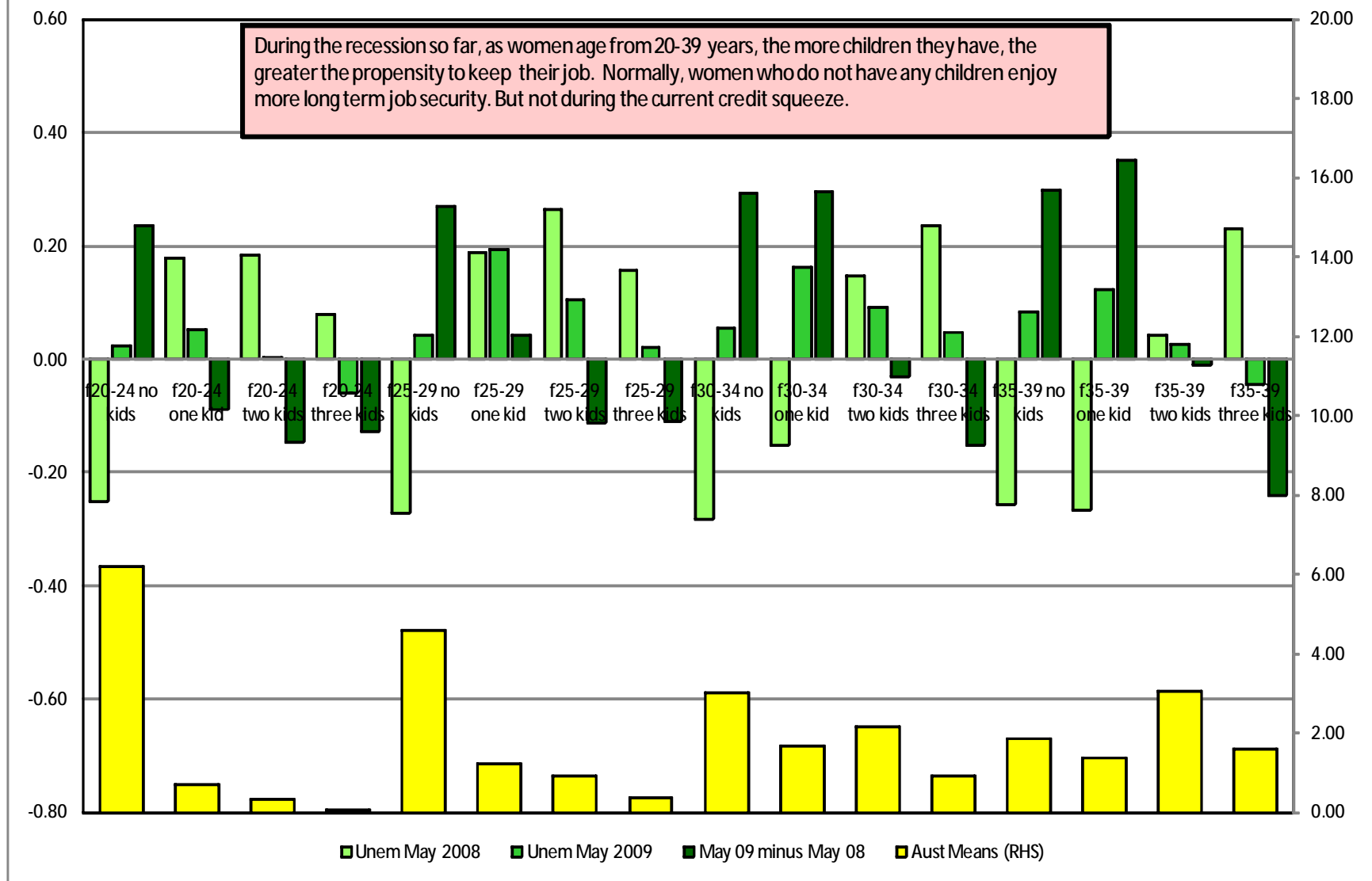
# Age Male



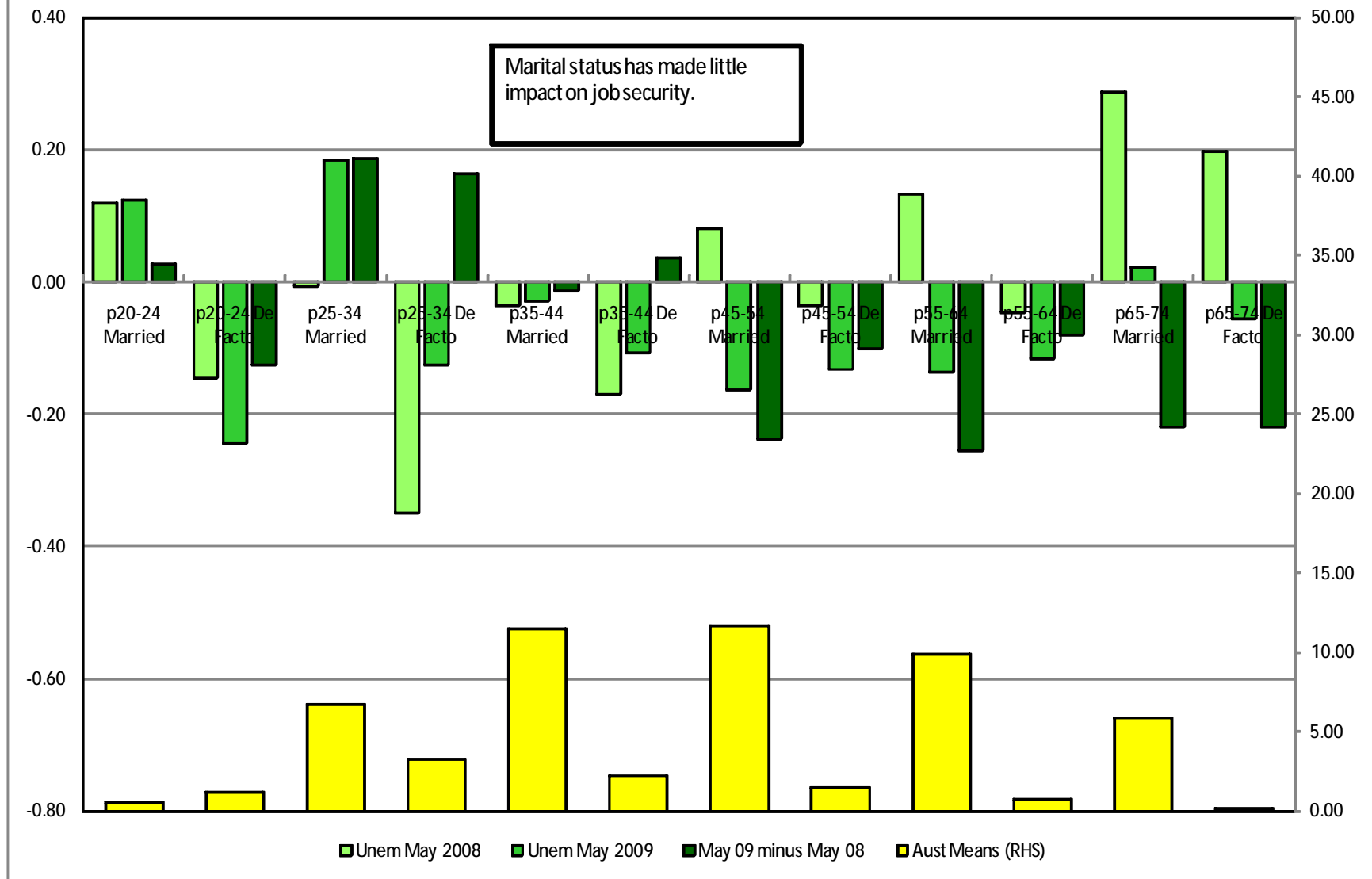
# Age Female



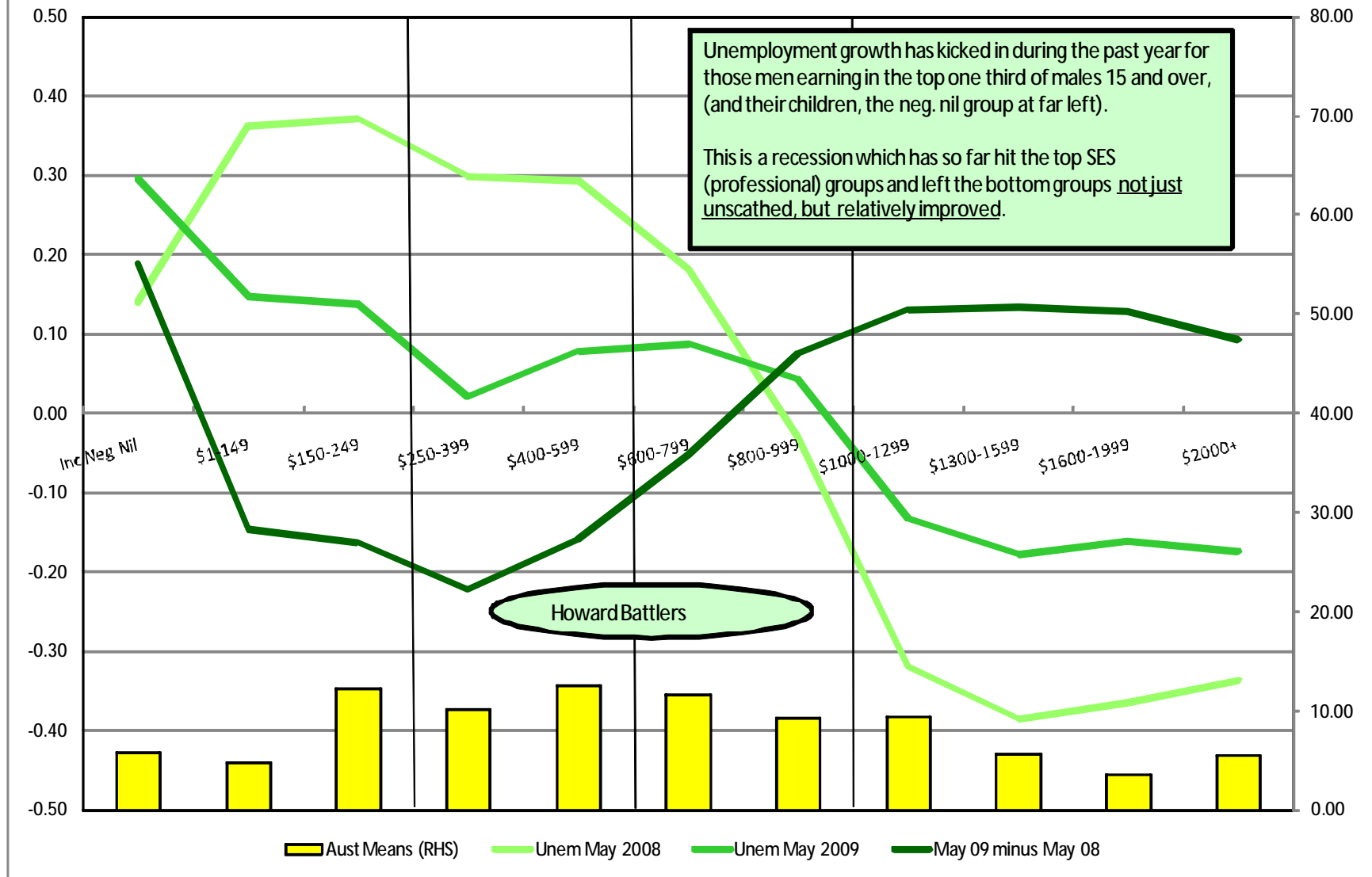
## Mothers and Children



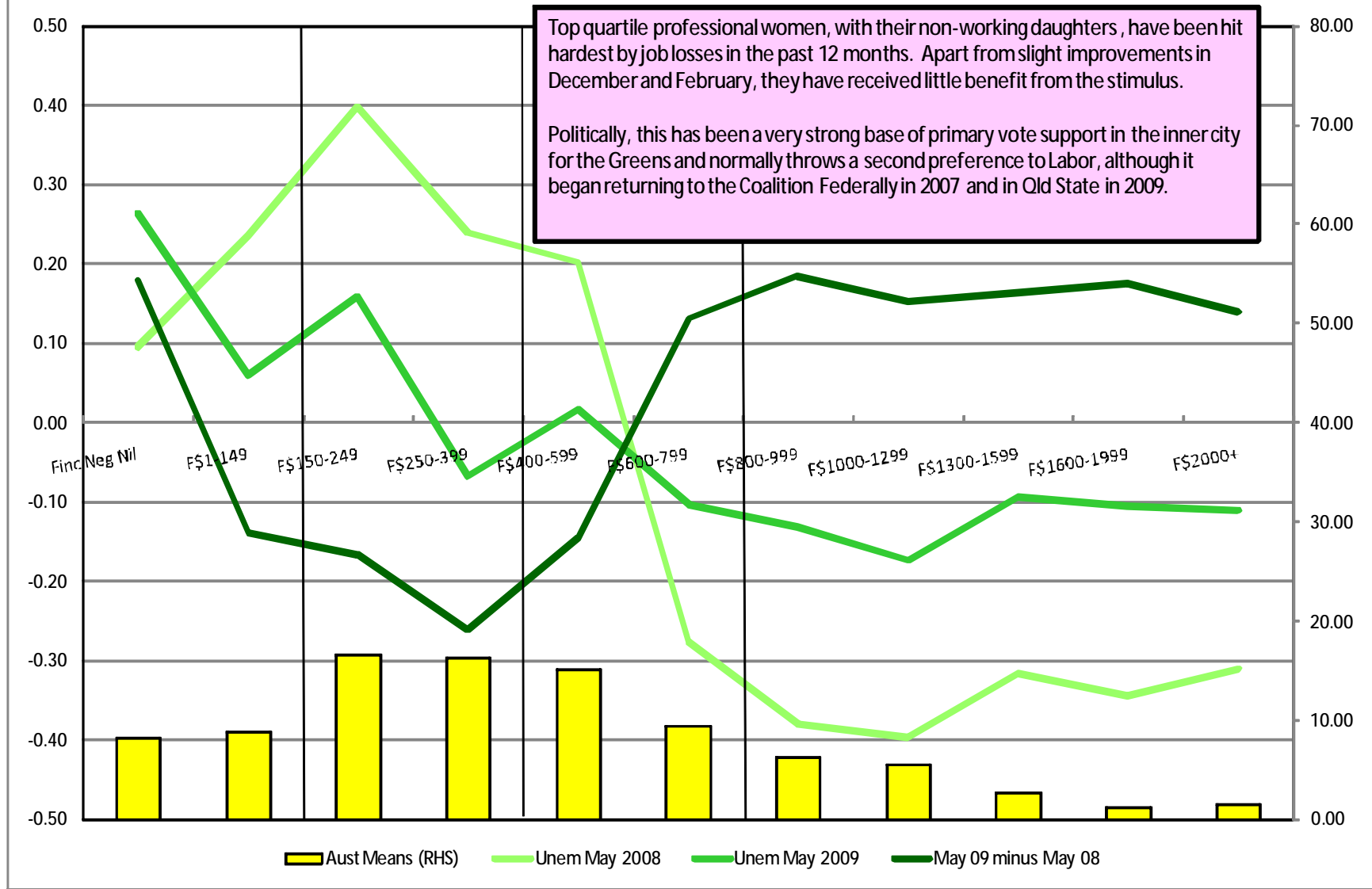
# Marital Status



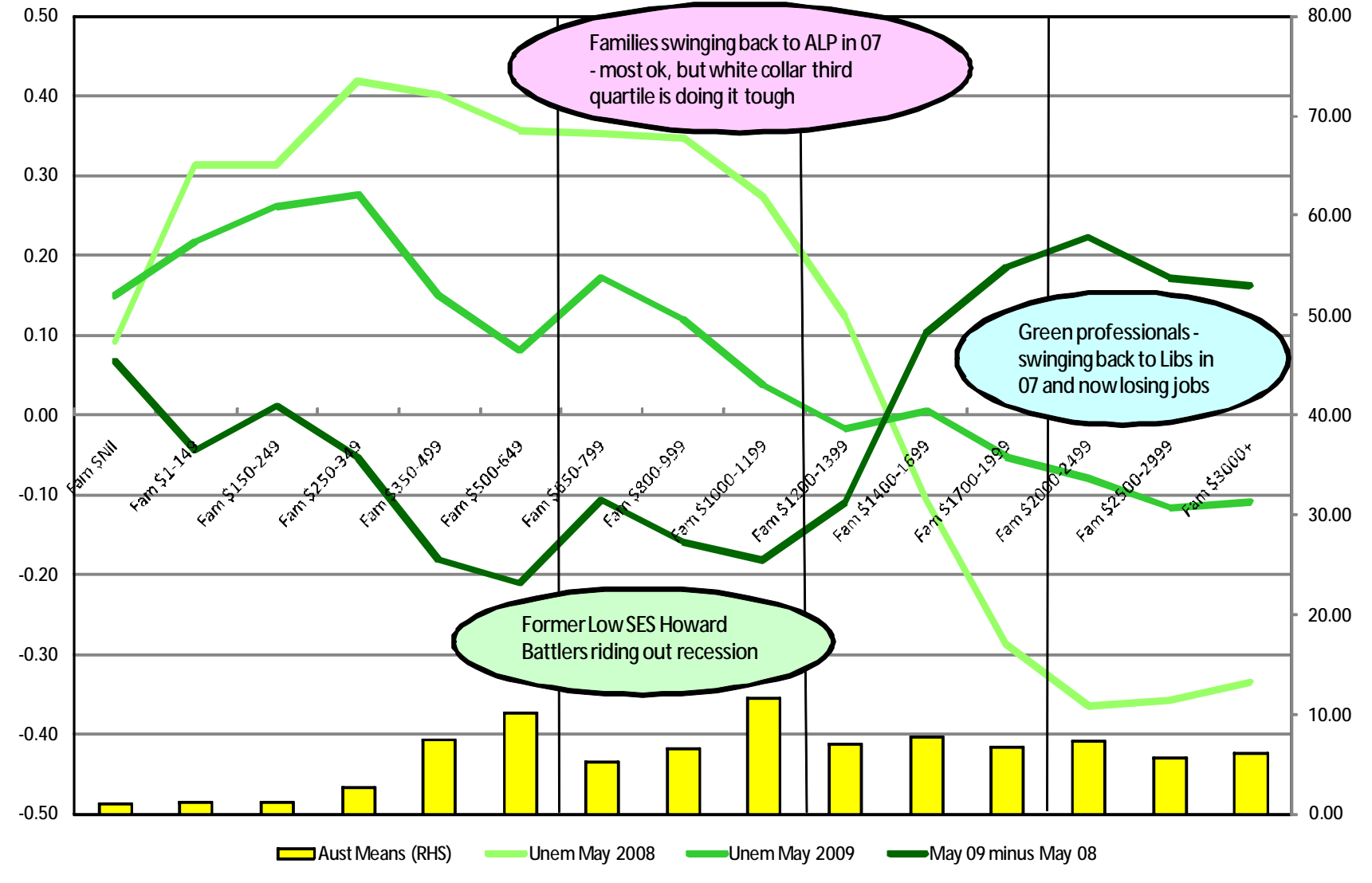
# Income Male



# Income Female

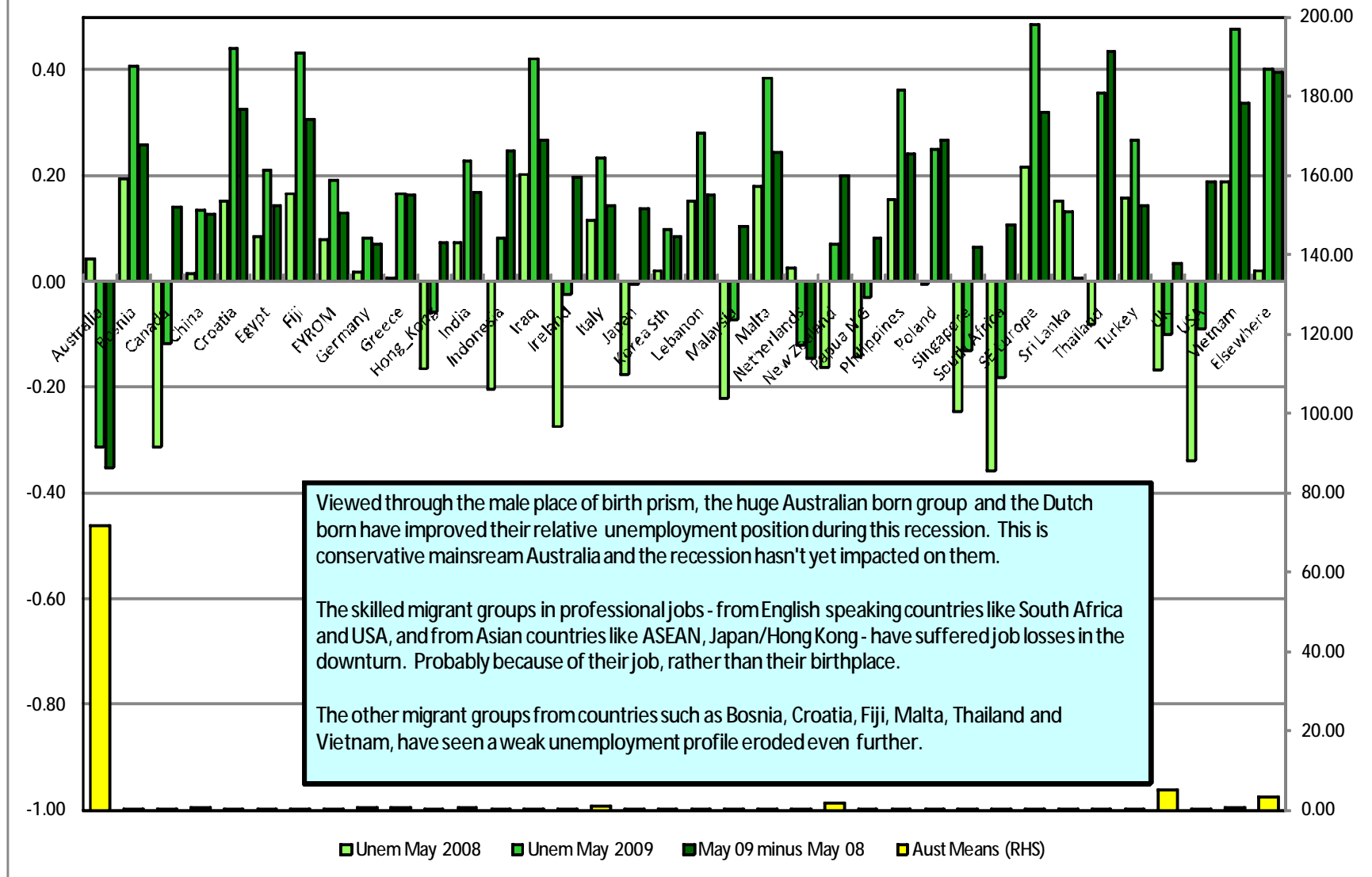


# Income Family

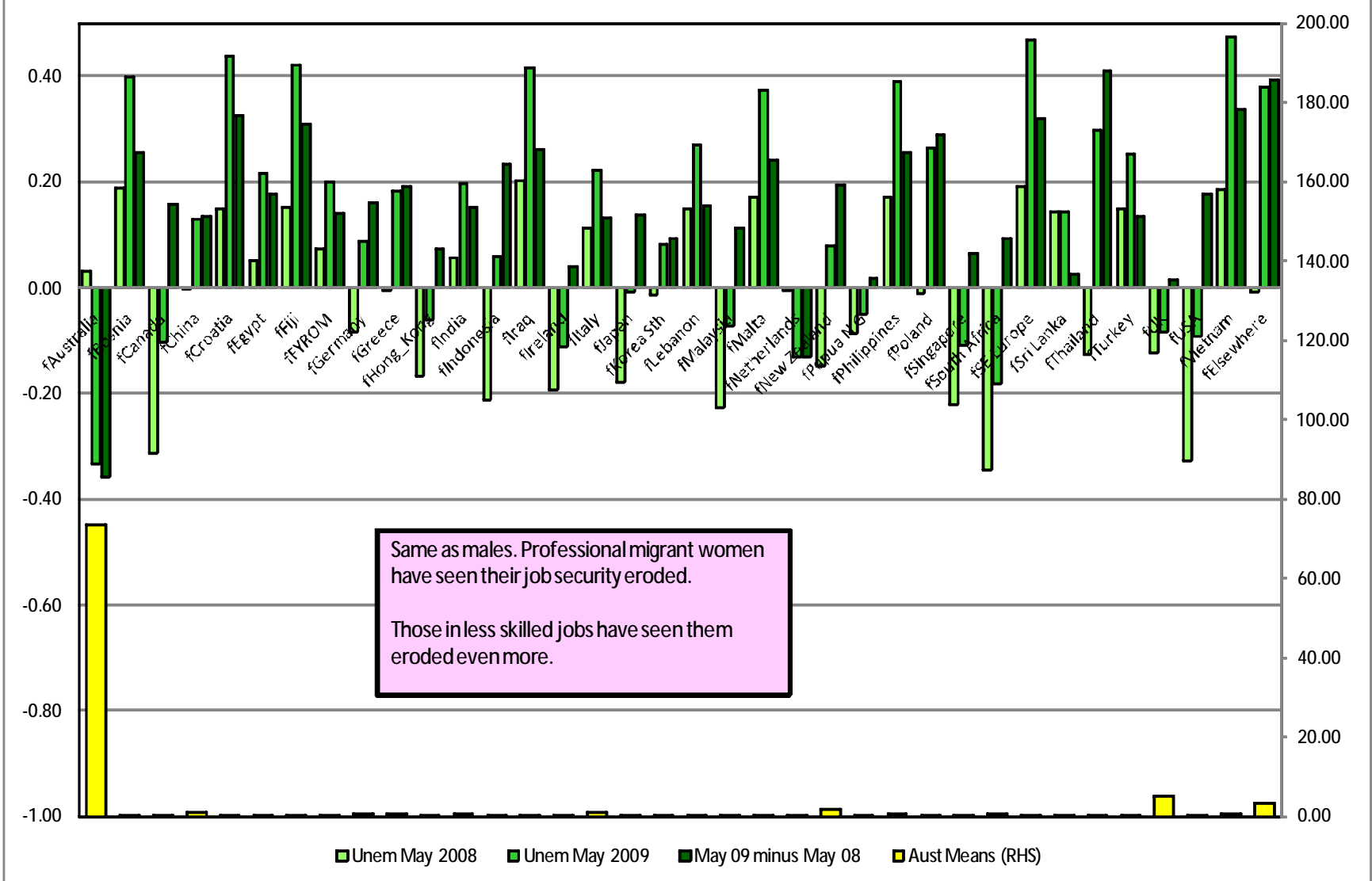




## Birthplace Male



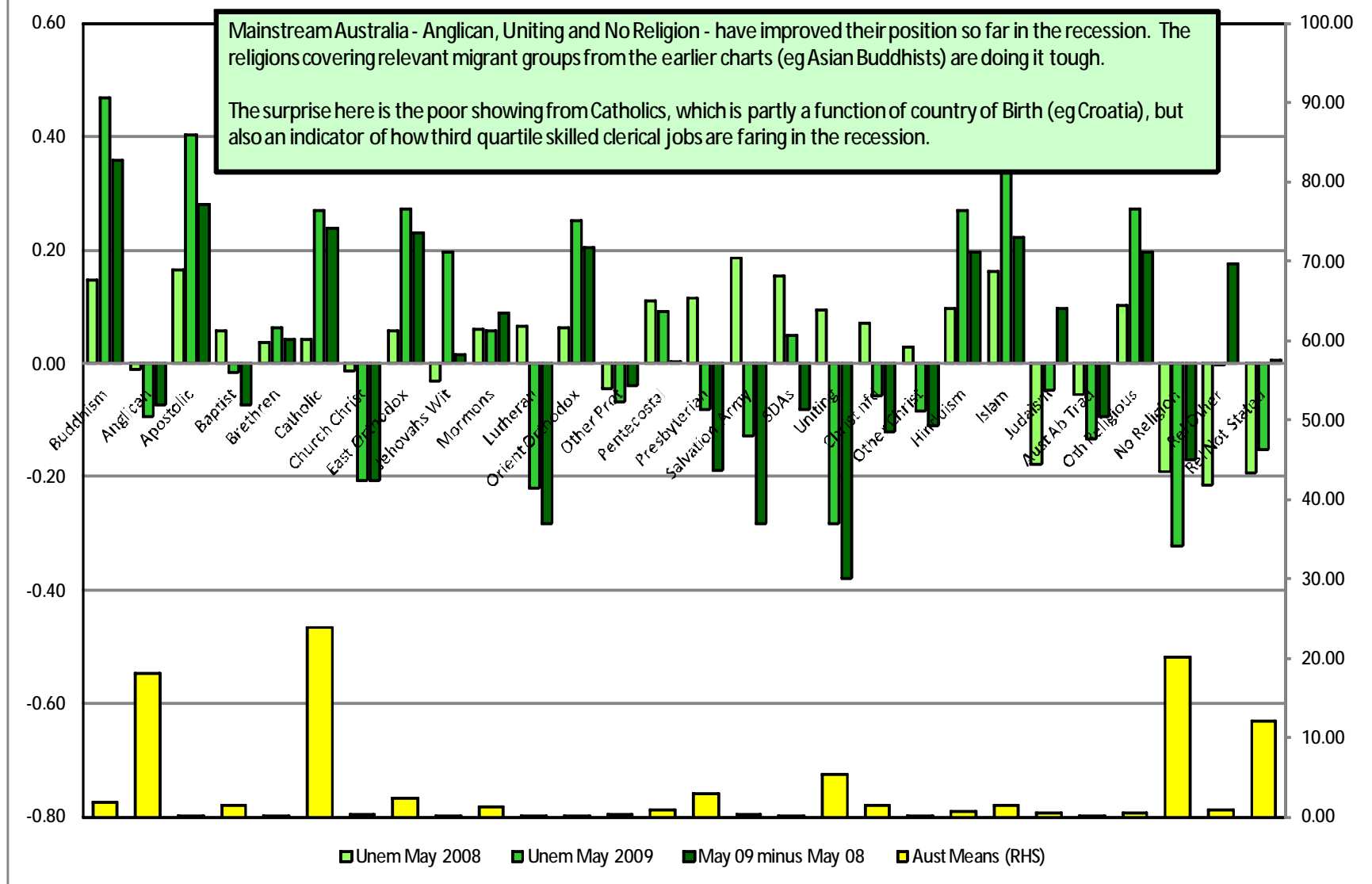
# Birthplace Female



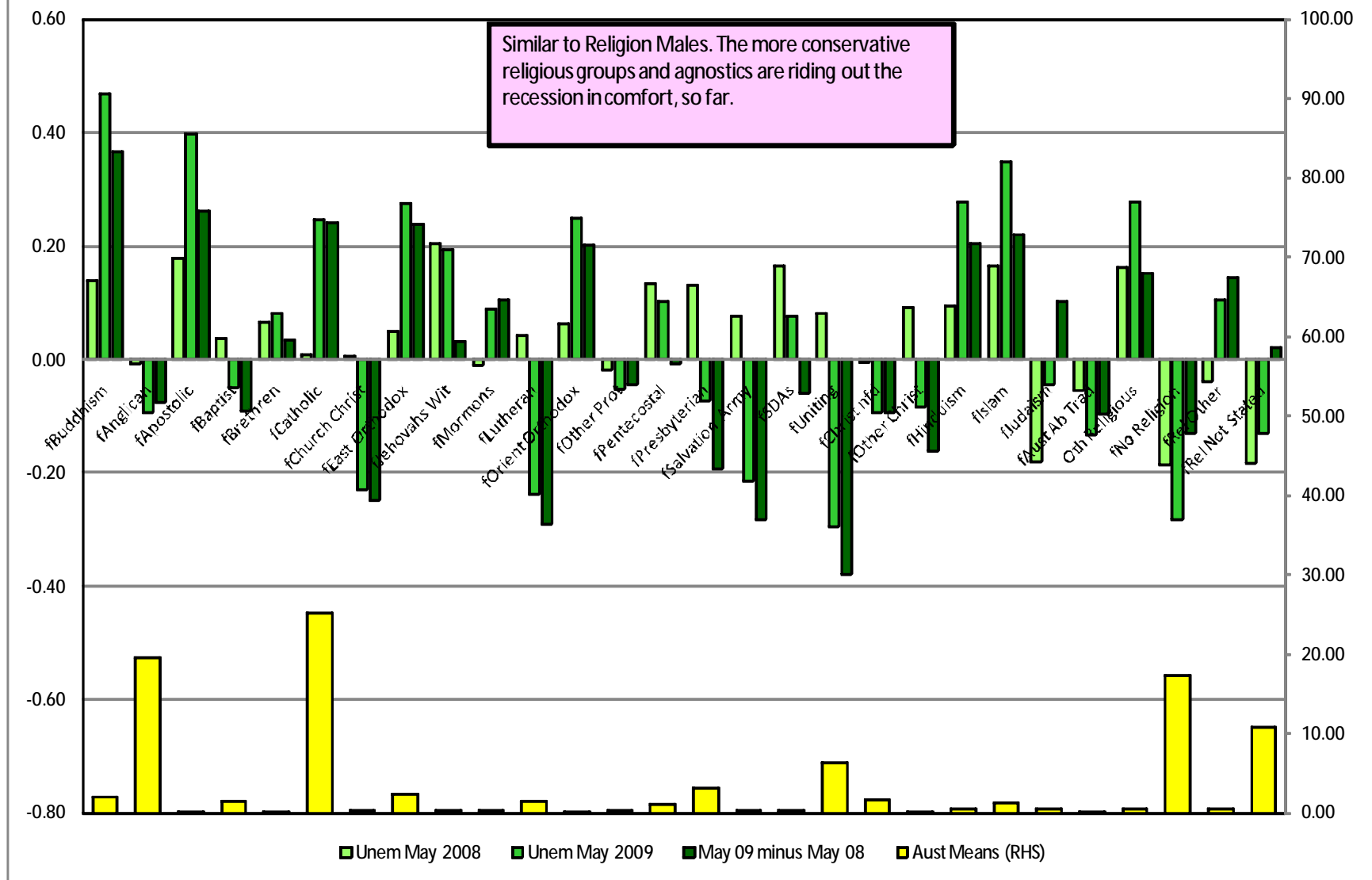
Same as males. Professional migrant women have seen their job security eroded. Those in less skilled jobs have seen them eroded even more.



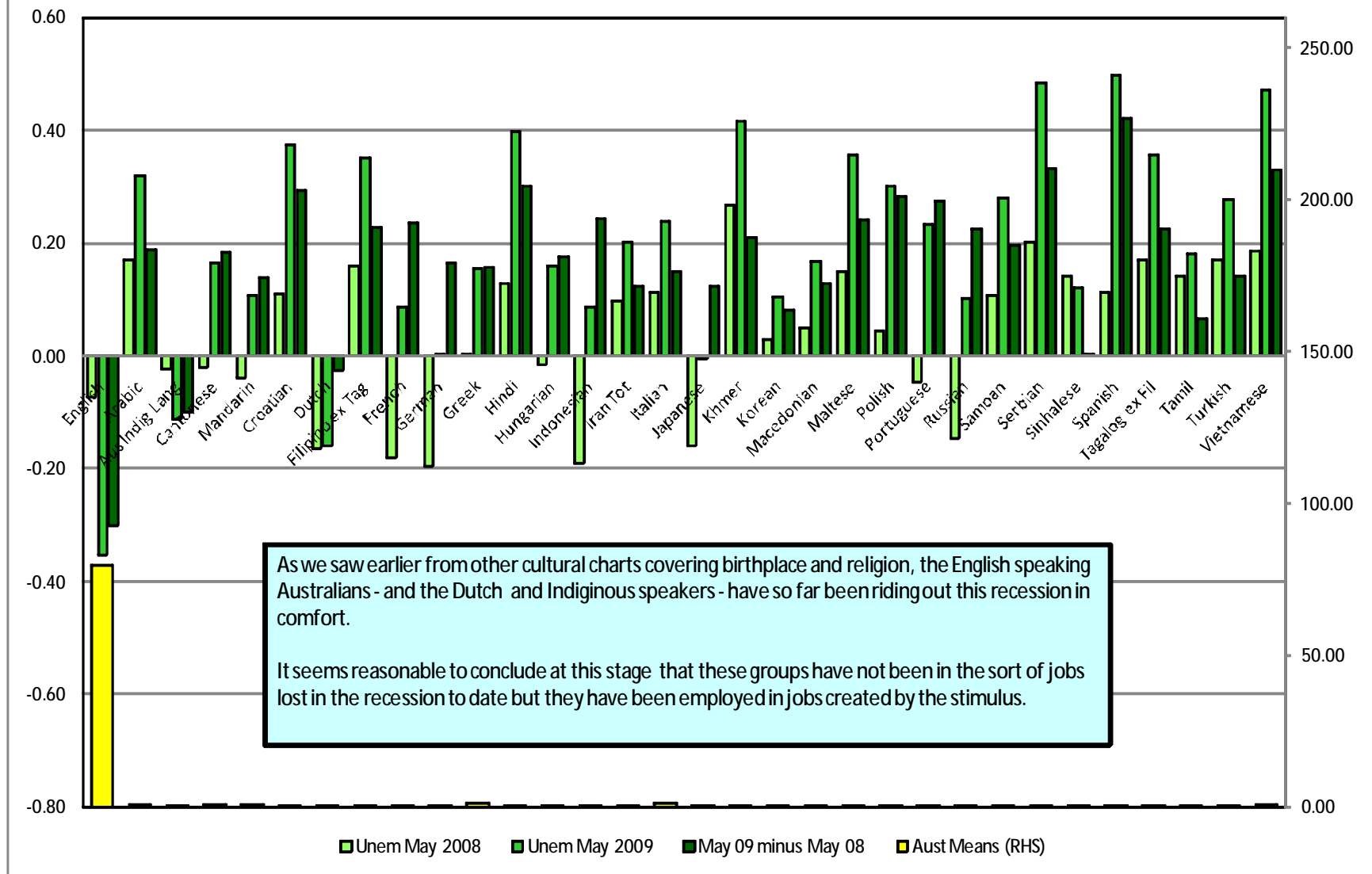
## Religion Male



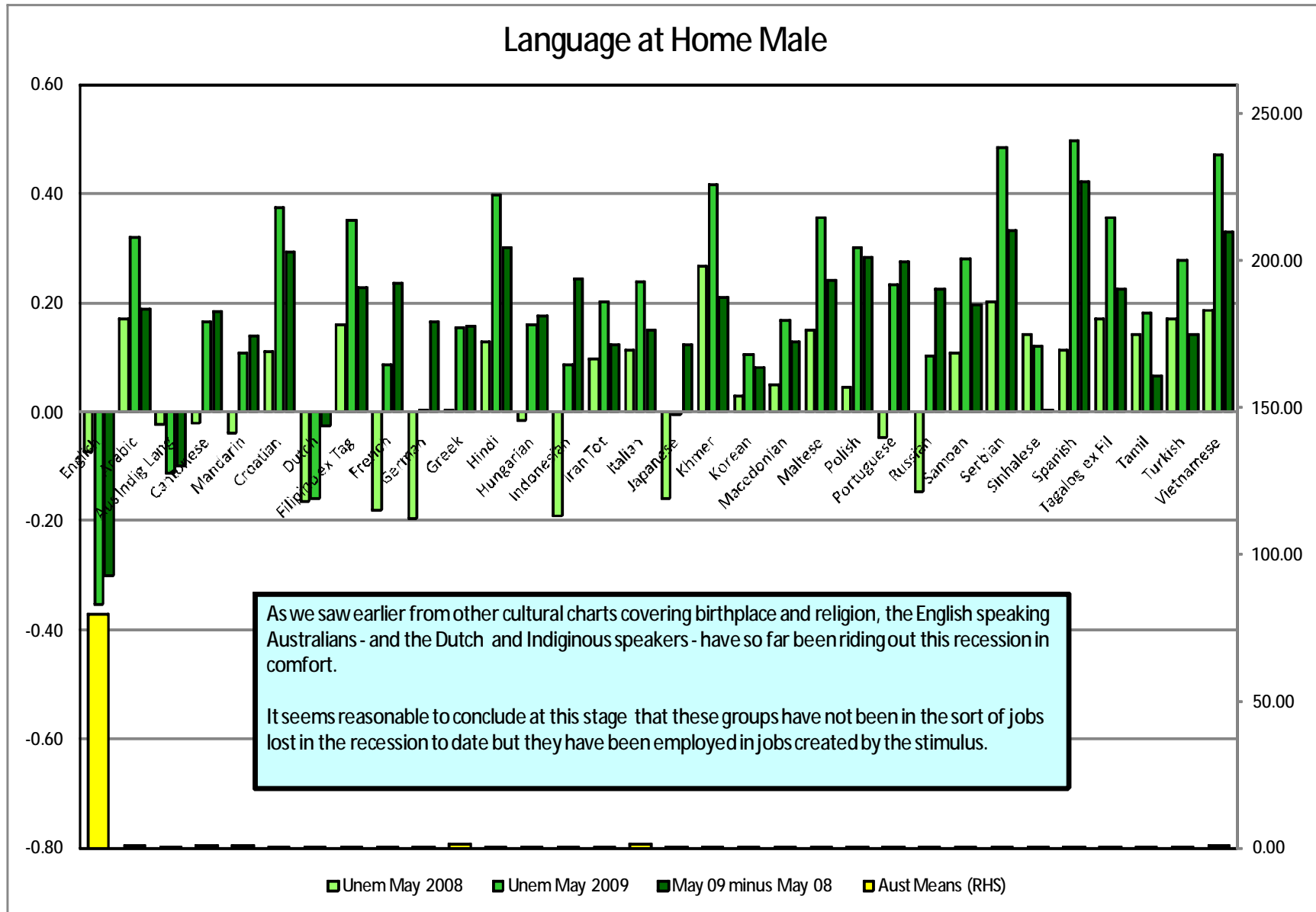
# Religion Female



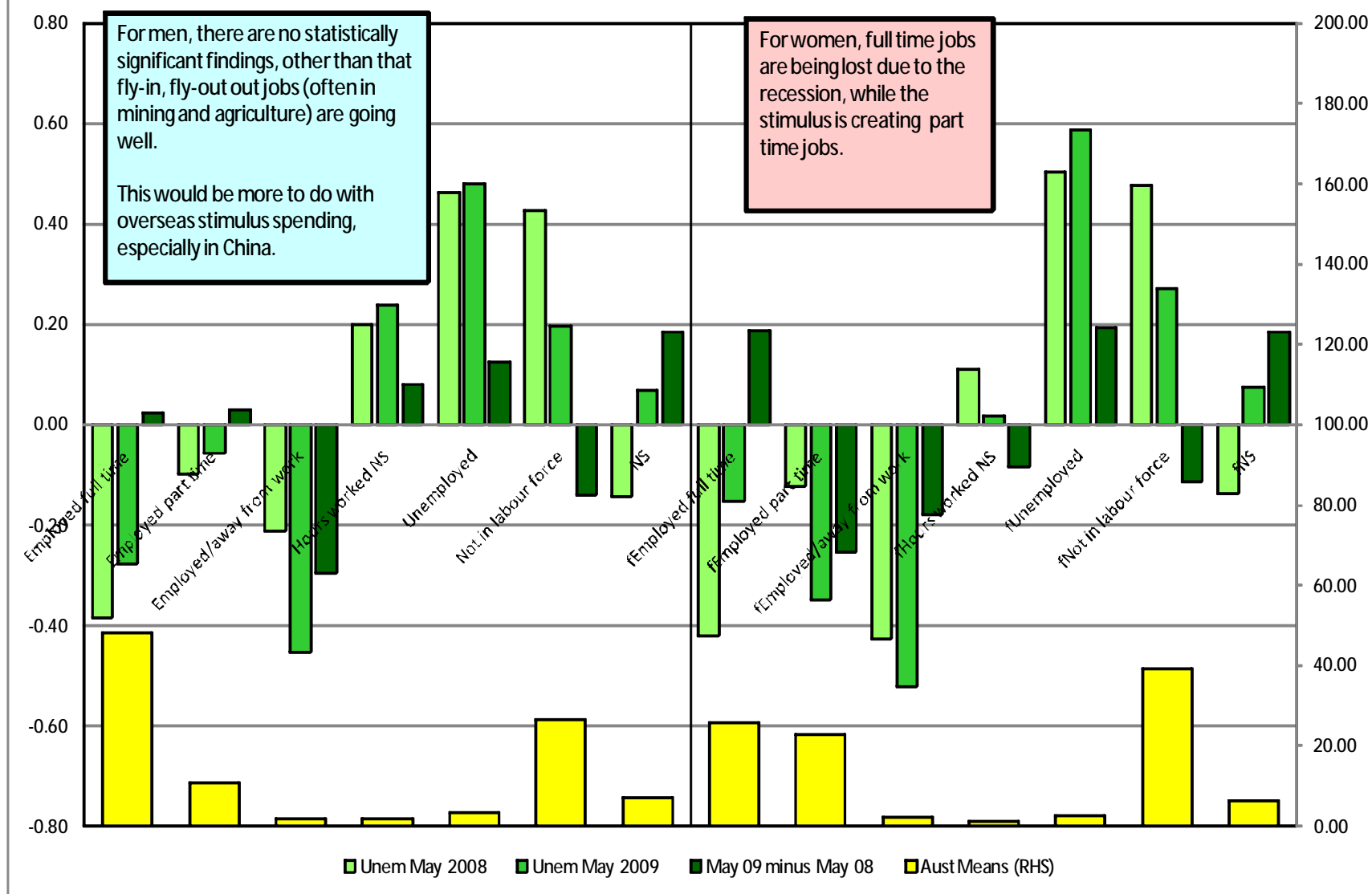
## Language at Home Male

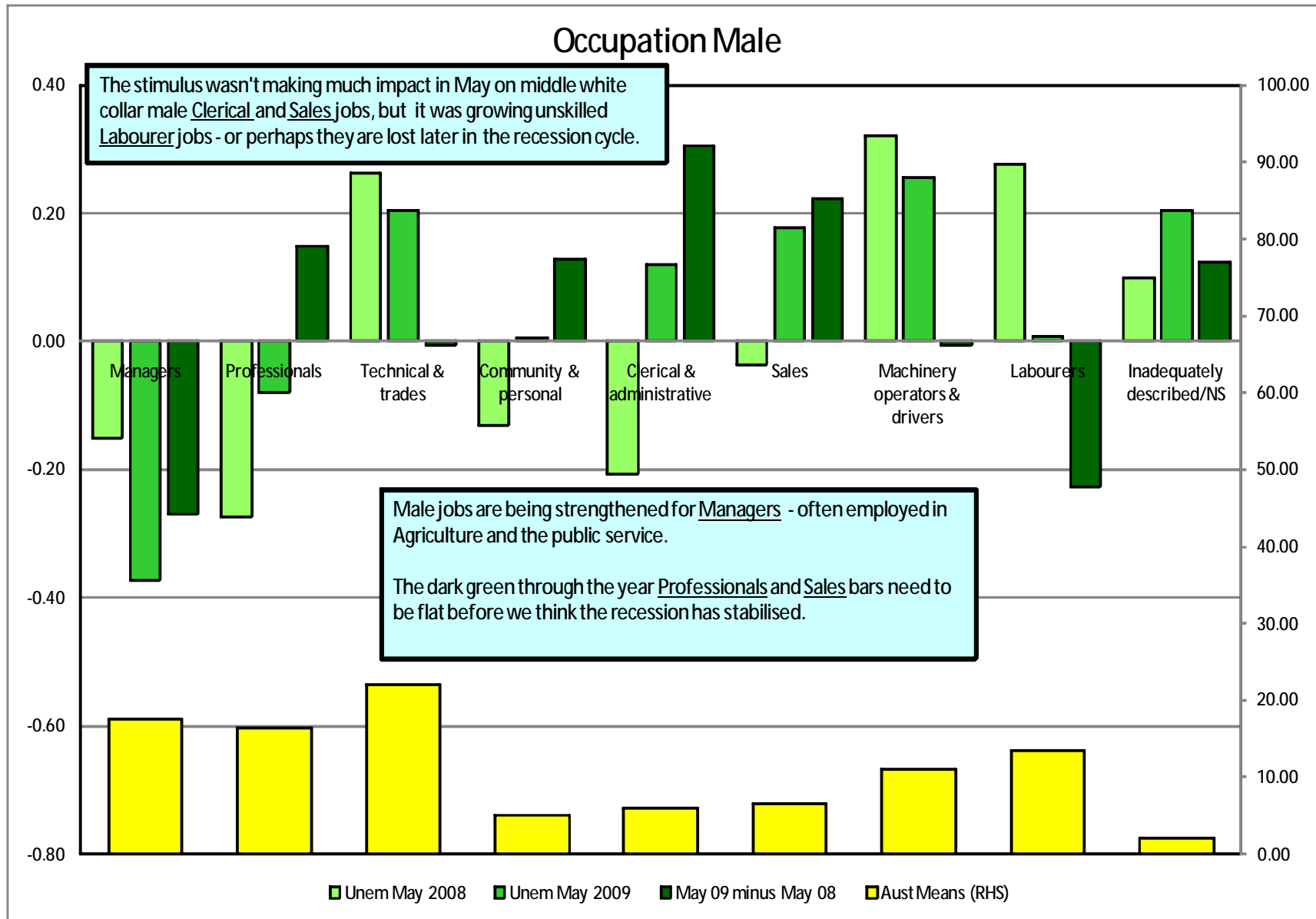


## Language at Home Male

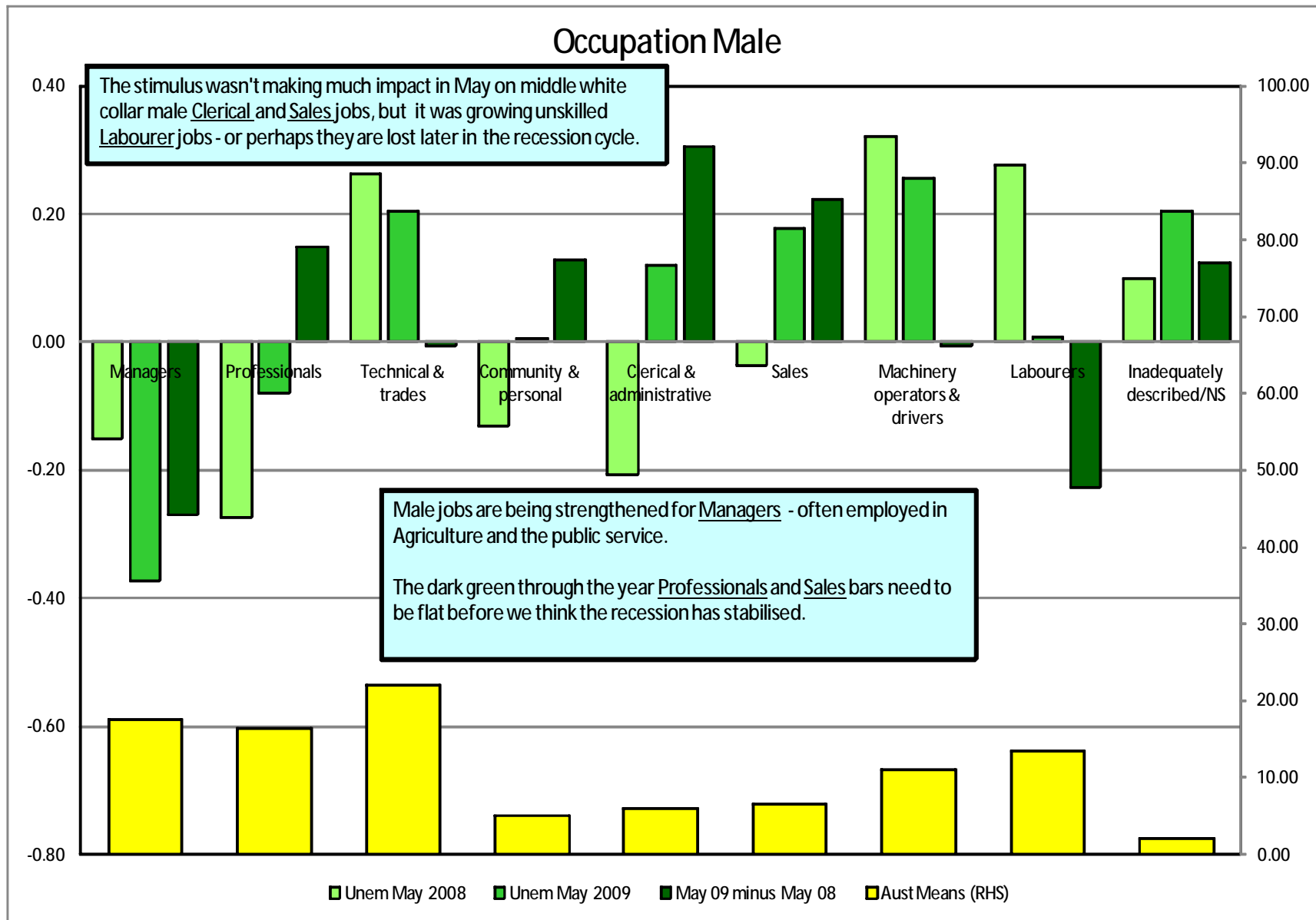


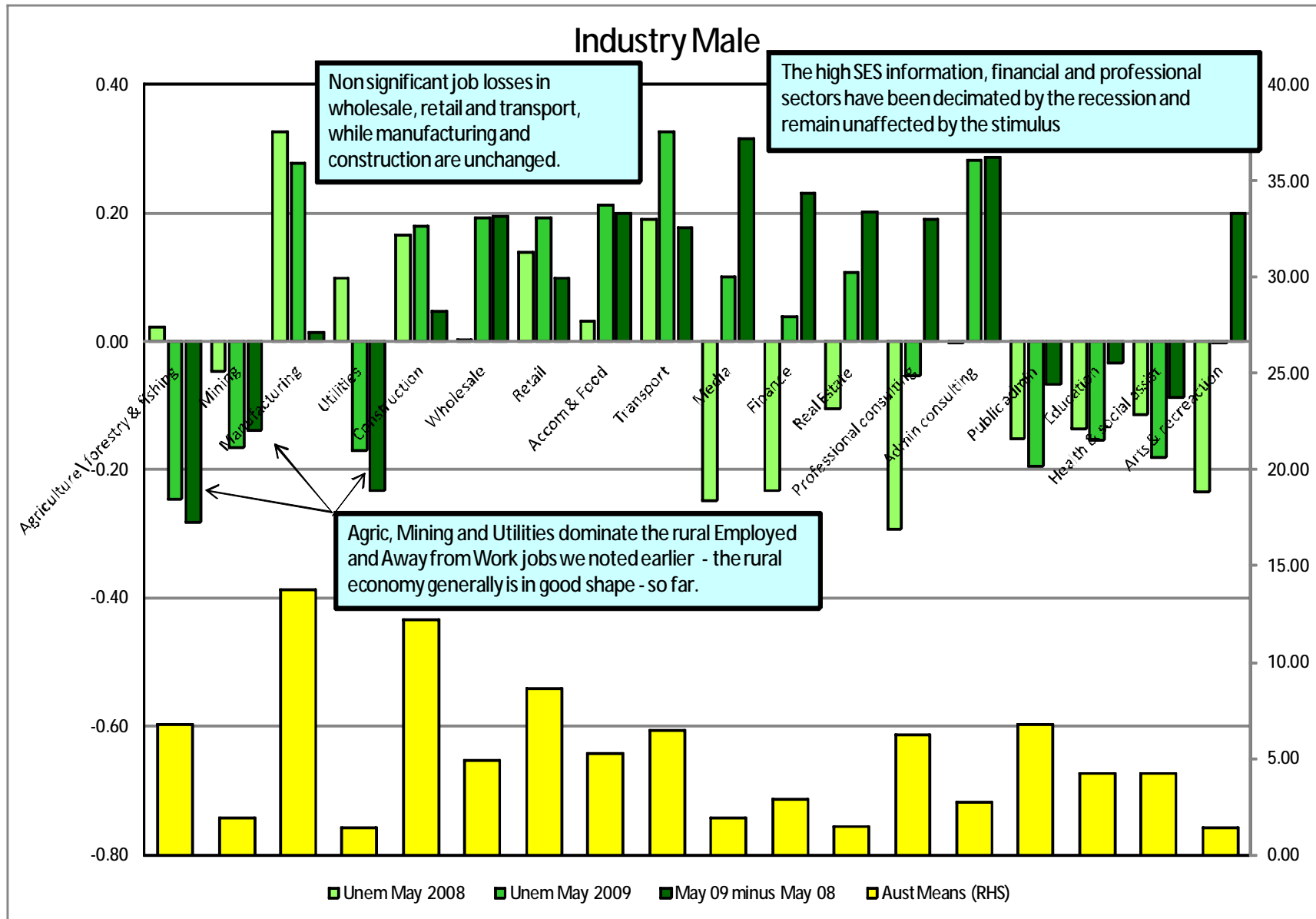
## Employment Male & Female

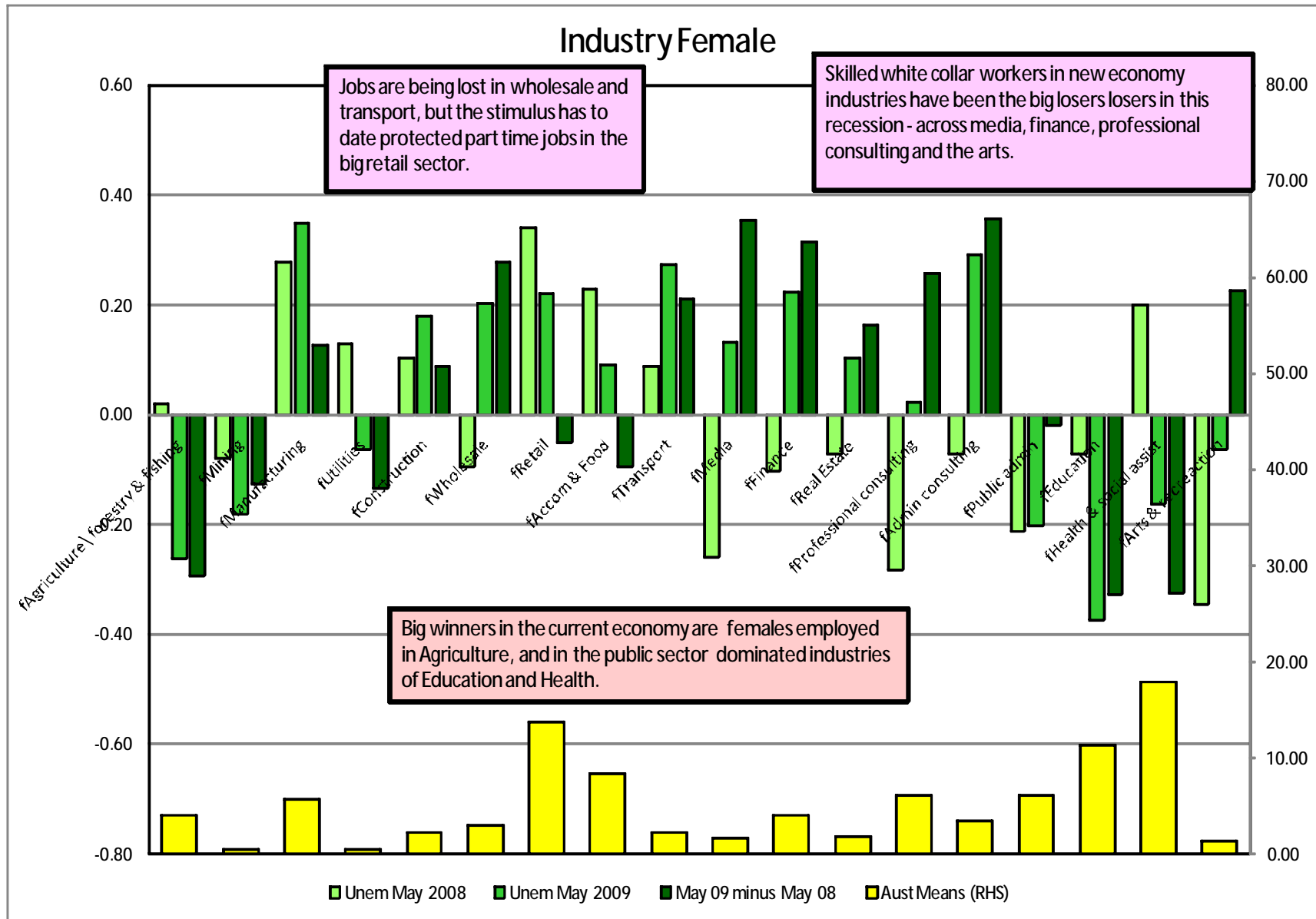




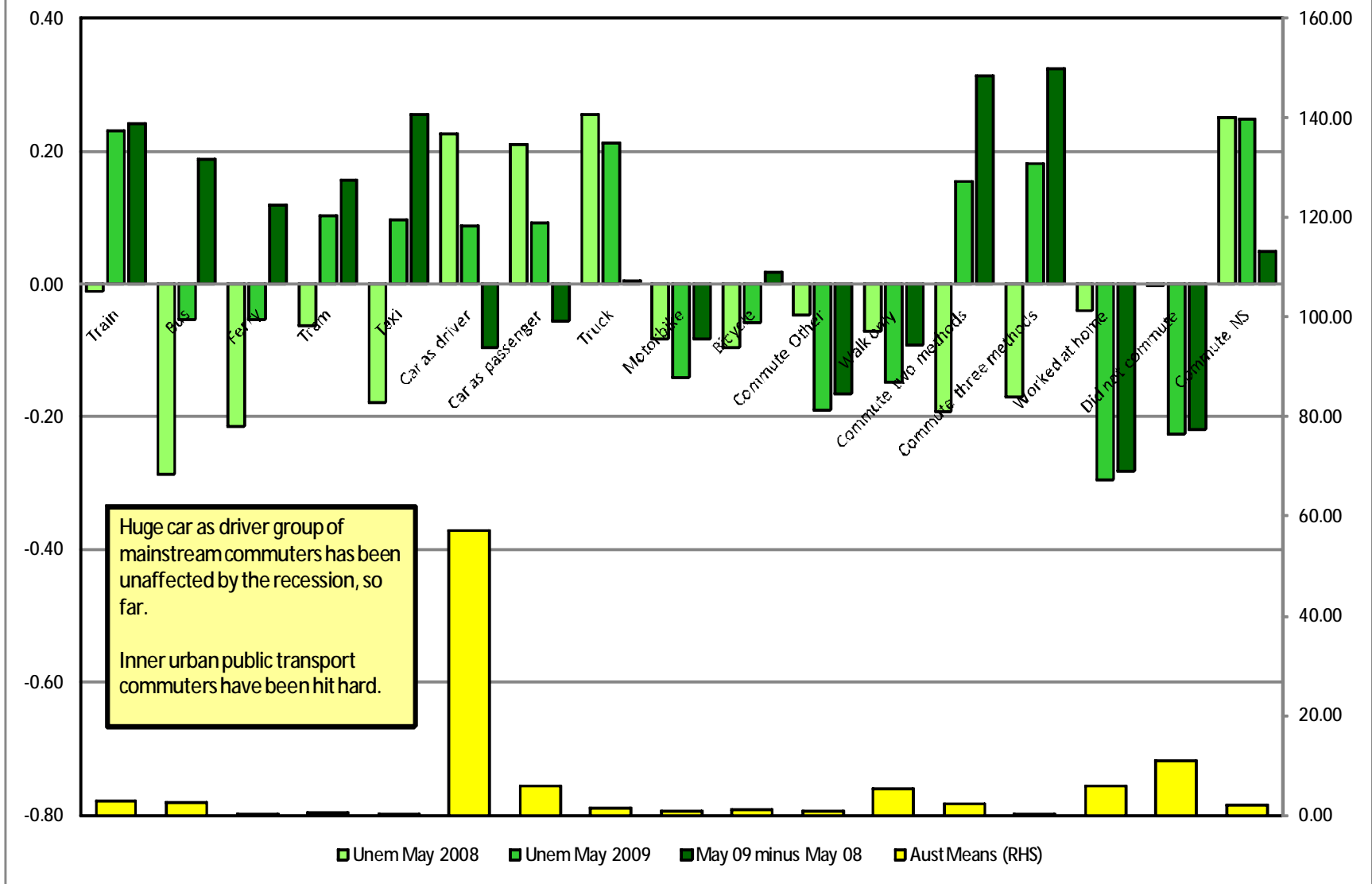




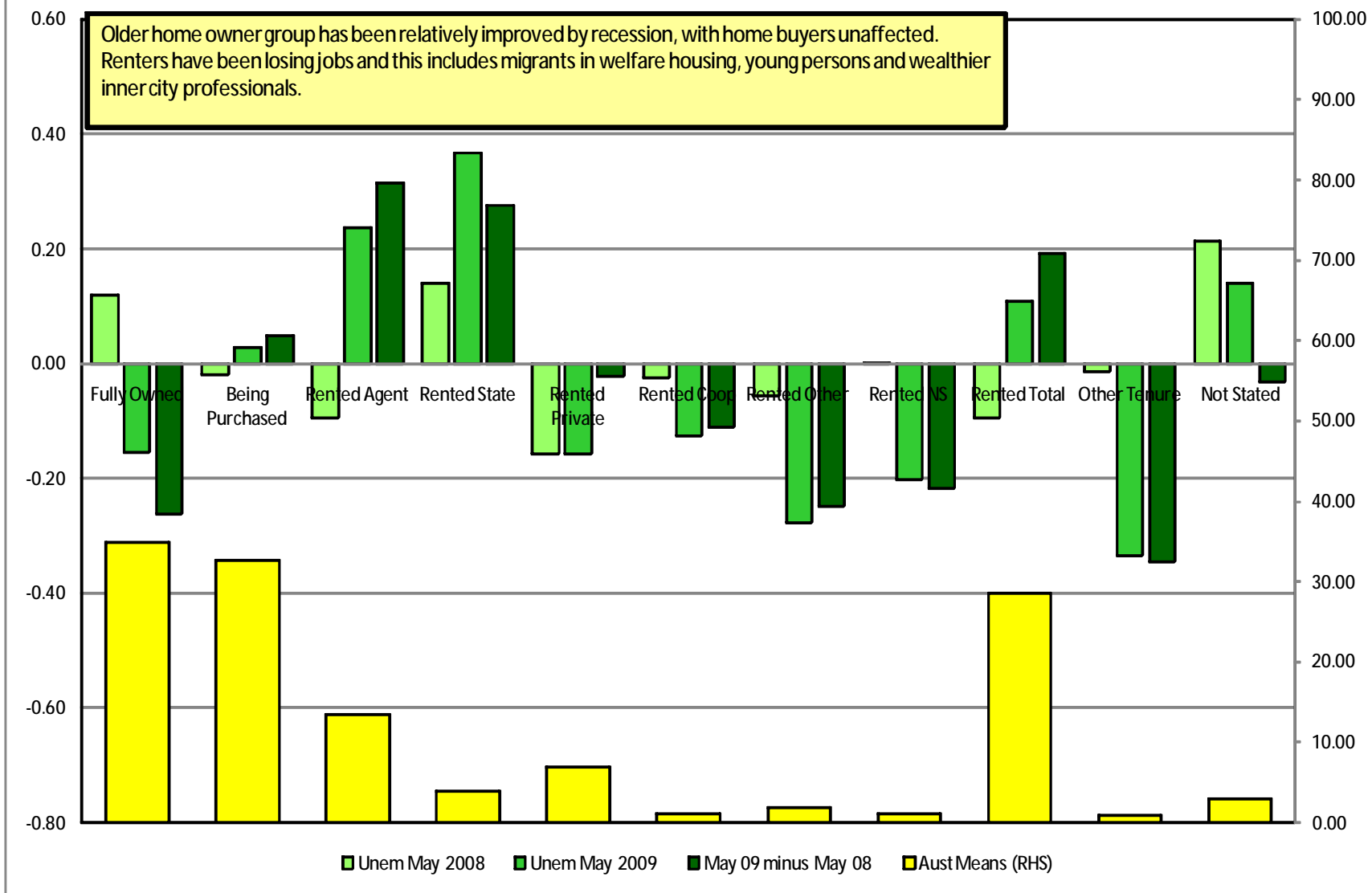


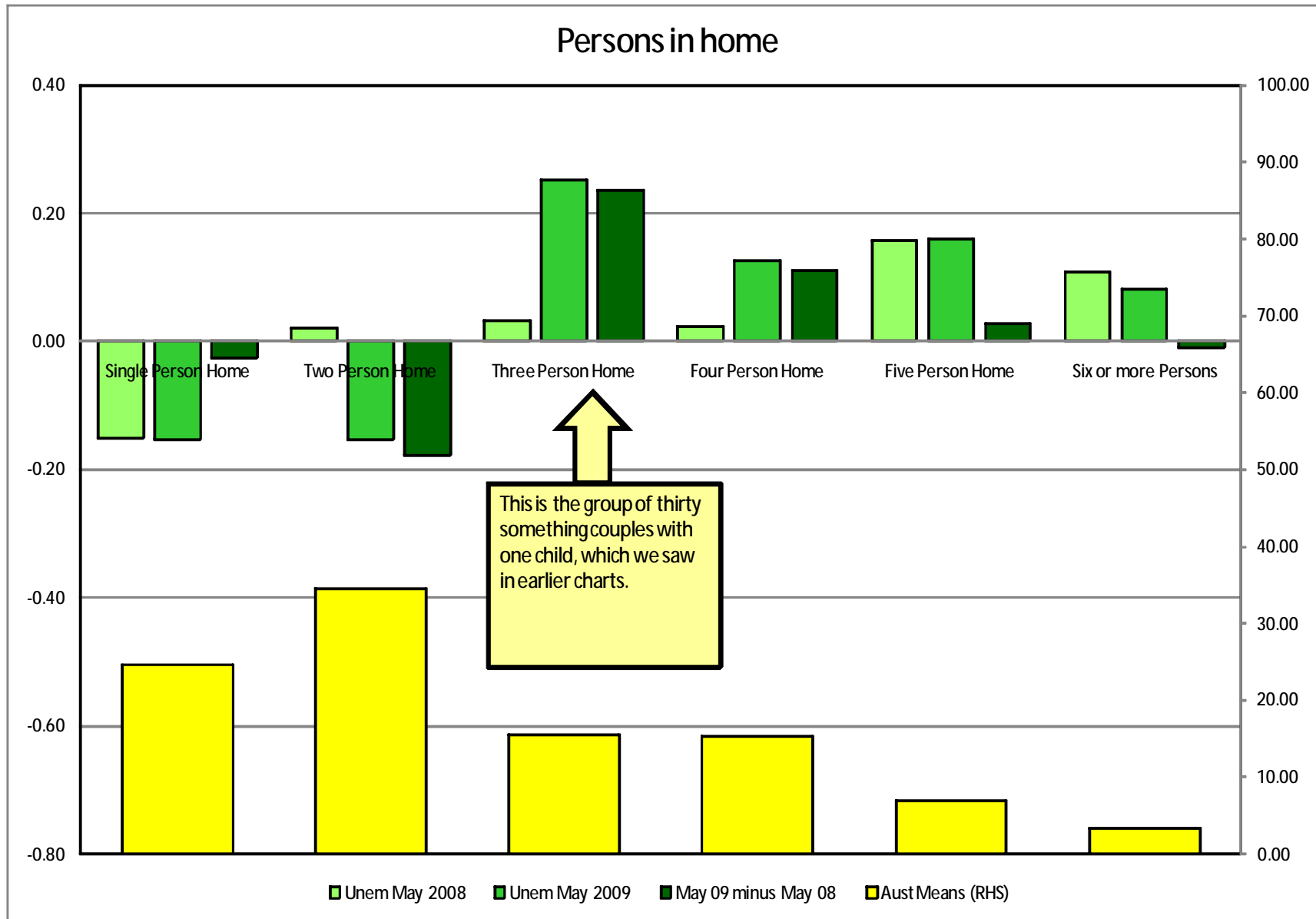


# Commute to Work

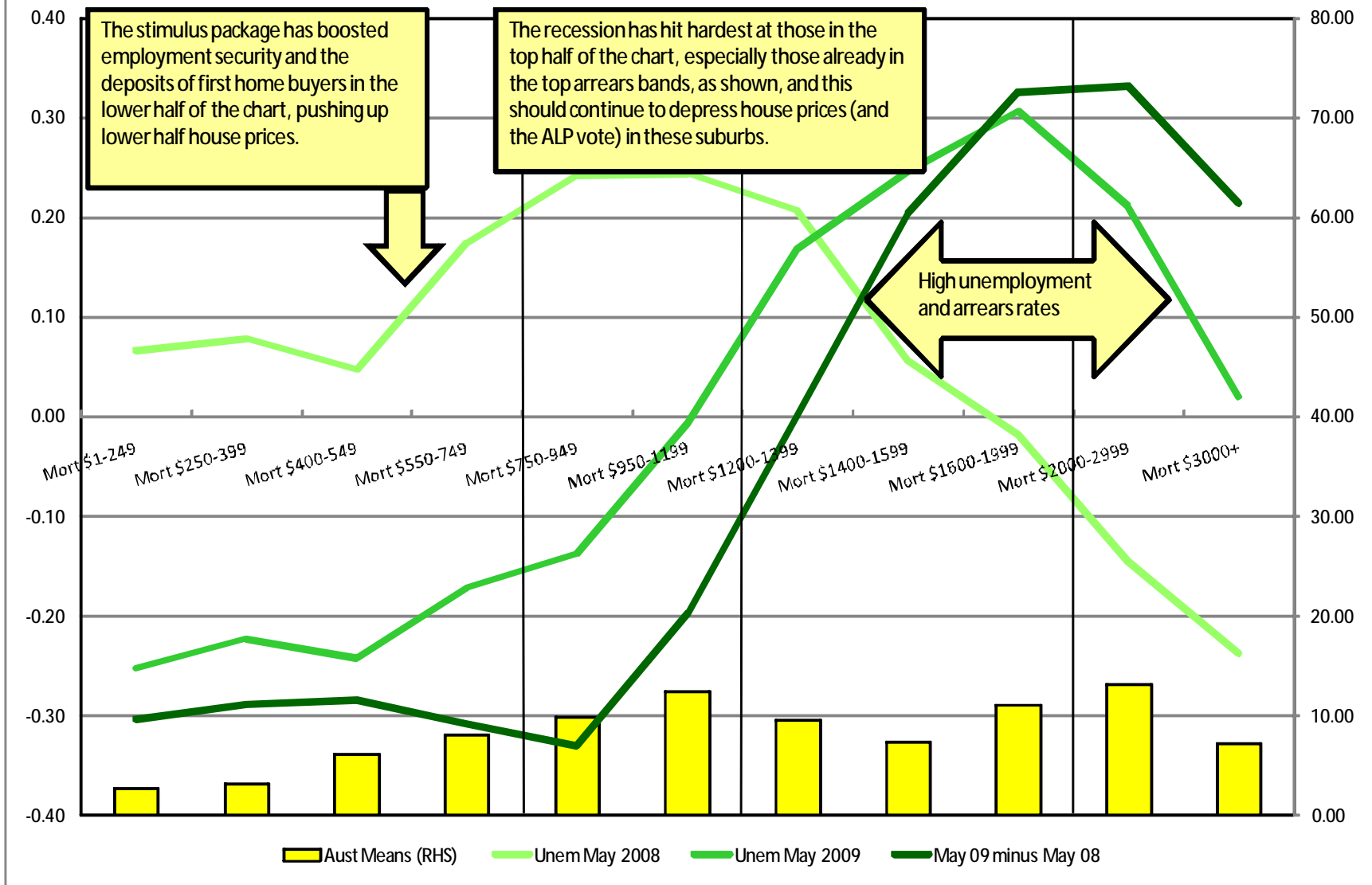


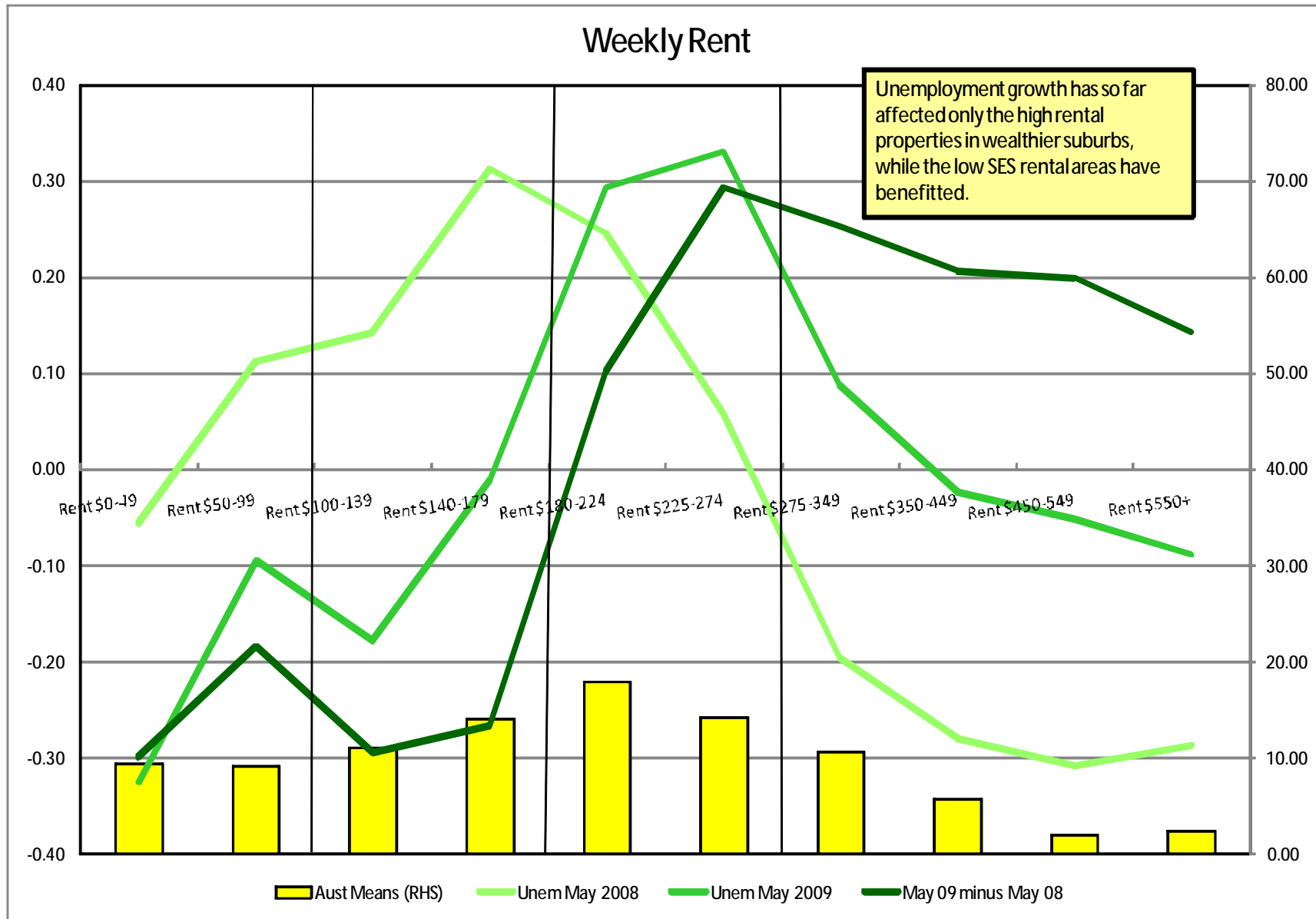
## Tenure





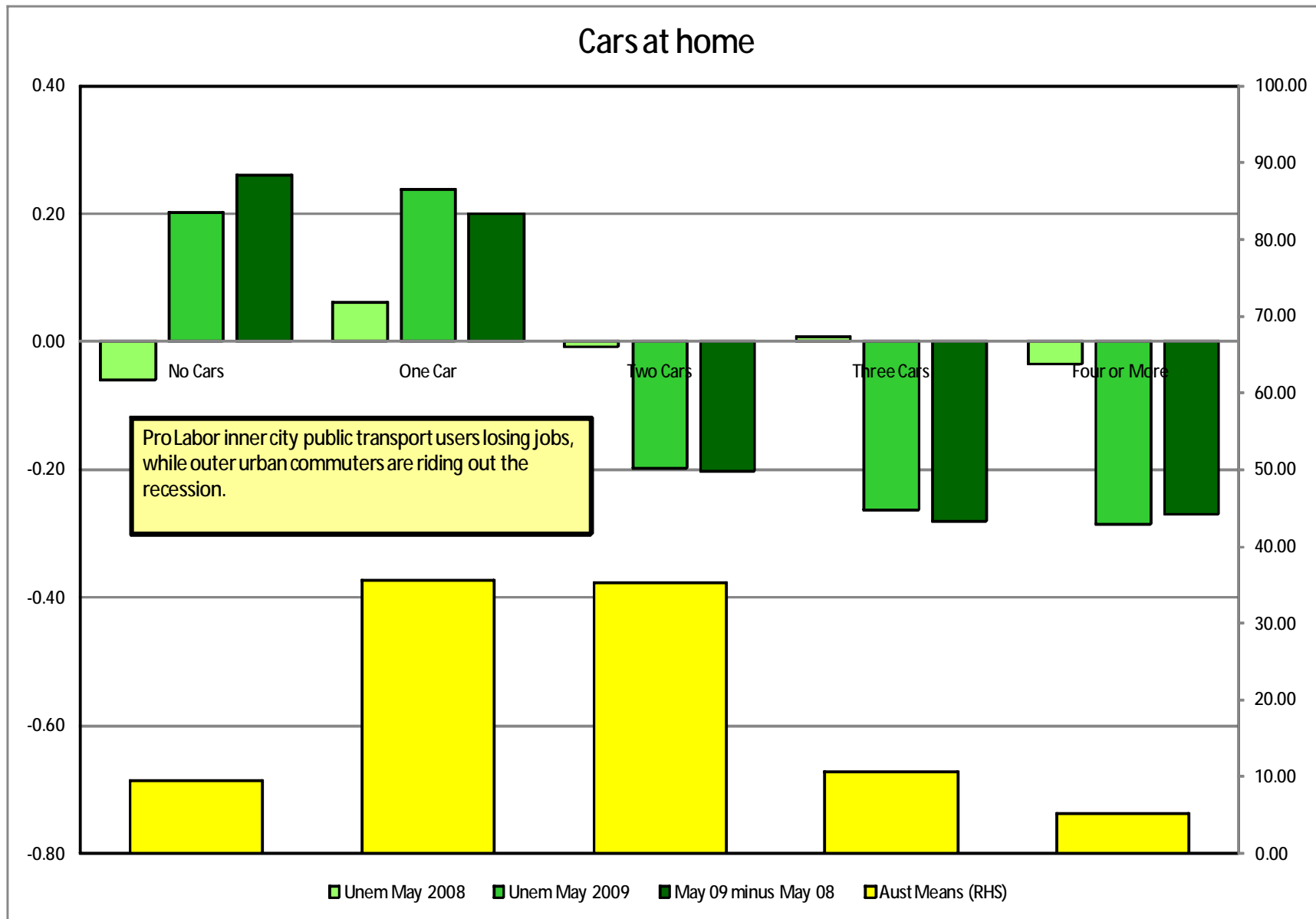
# Monthly Mortgage

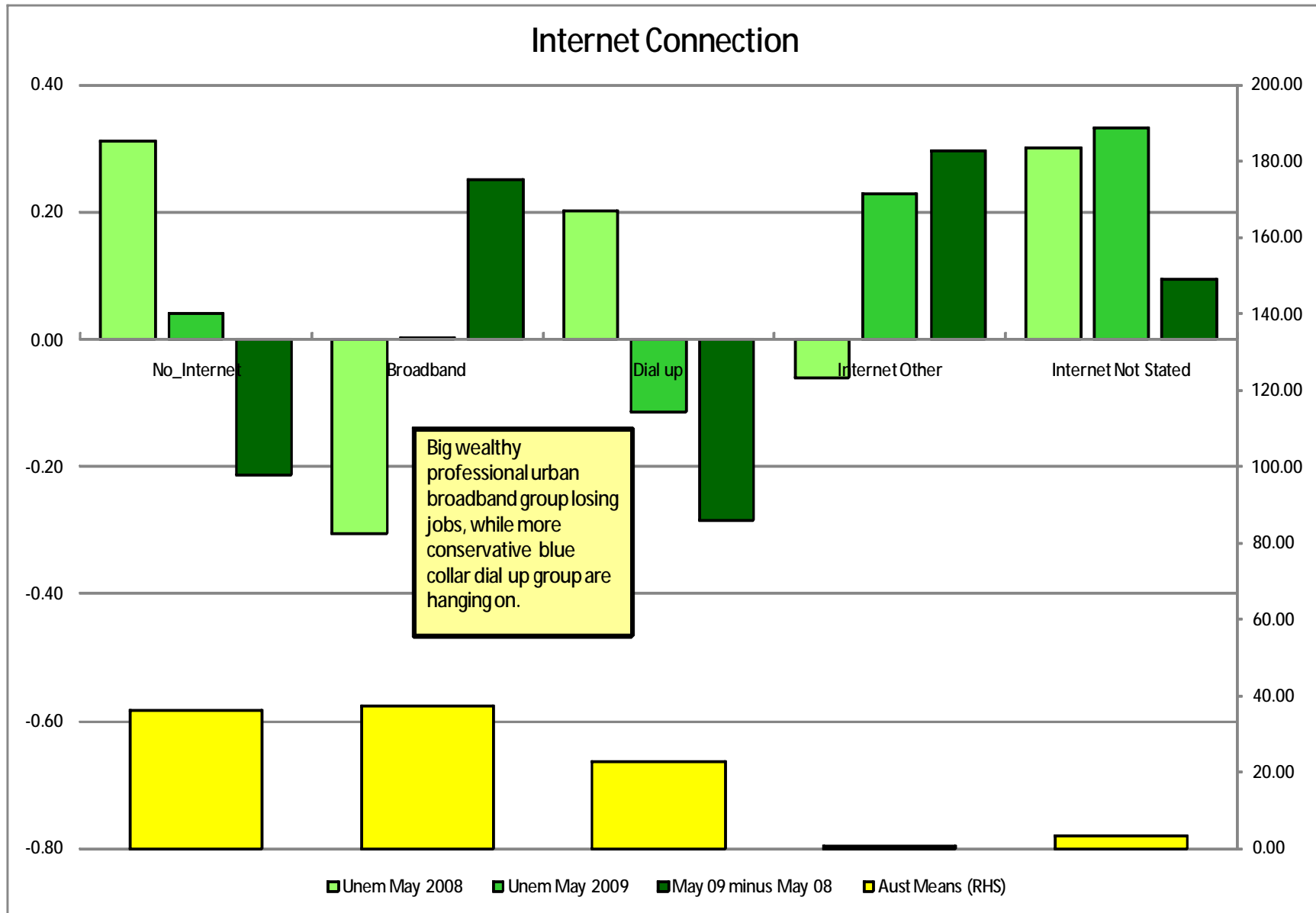


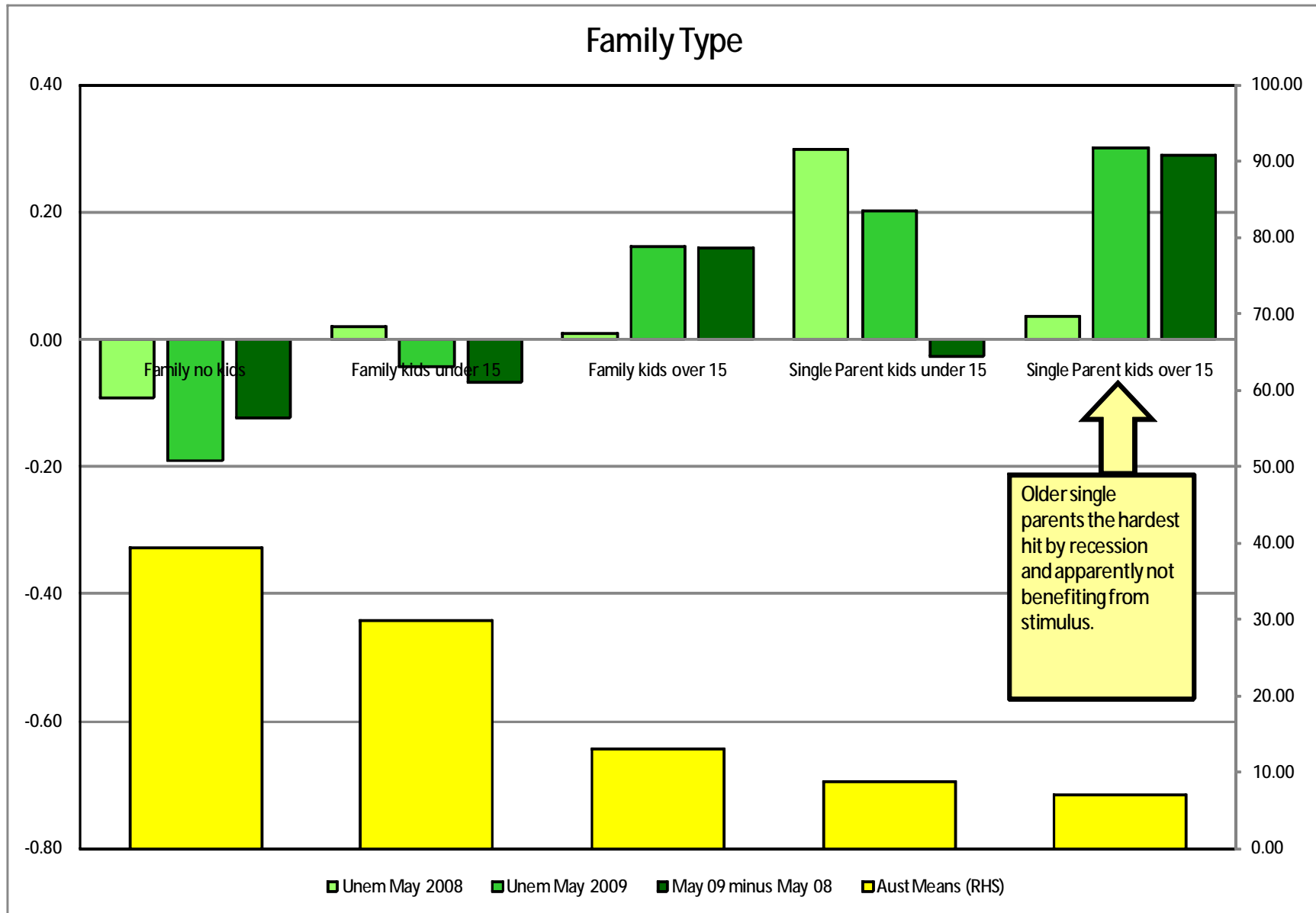




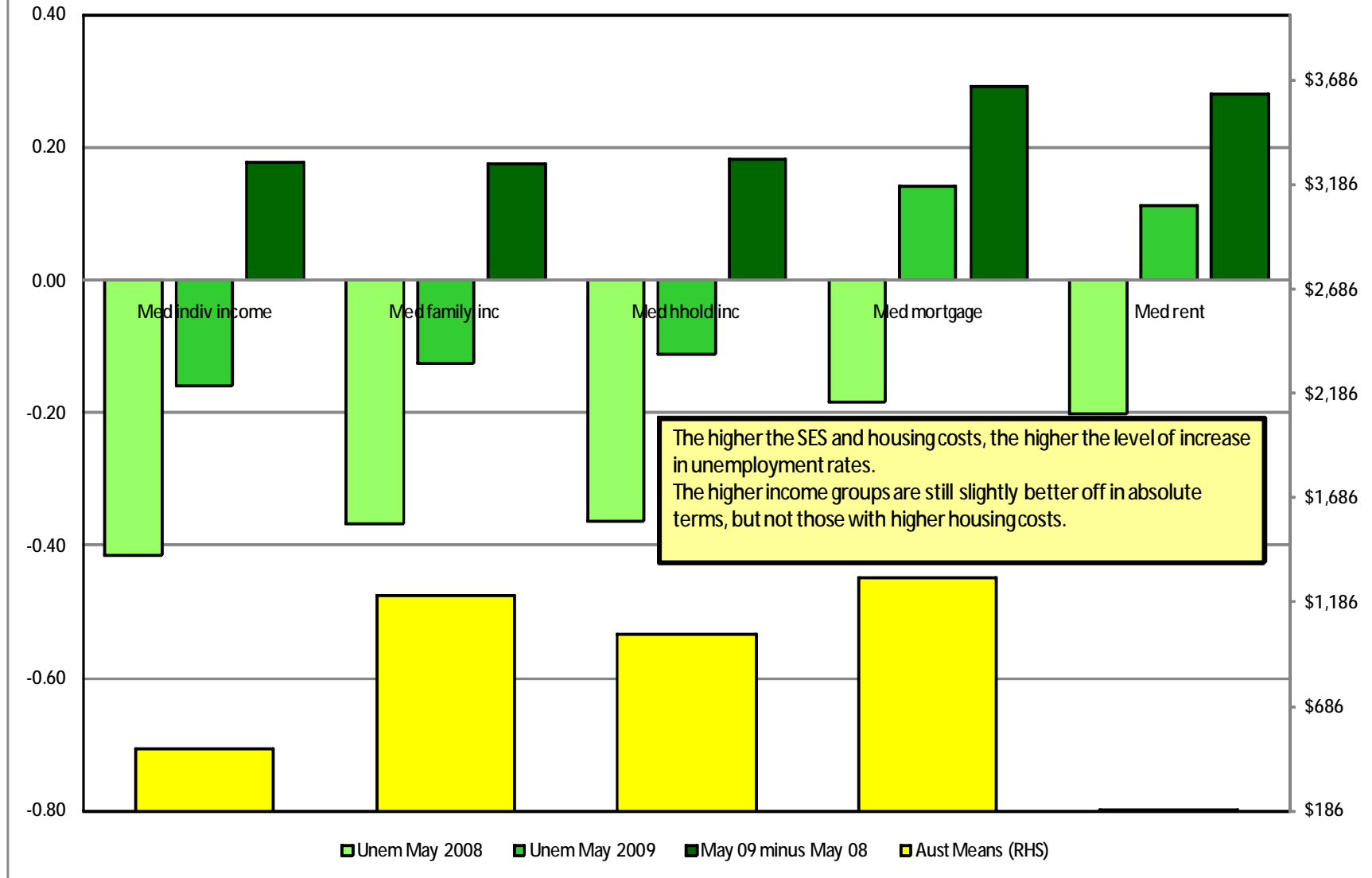
### Cars at home







## Family Budgets



## Regional Unemployment Index (RUIN)

Table 3 shows the 69 regions used in the Labor force monthly survey, the corresponding May 09 unemployment rate and the change in unemployment over the past 12 months. The table is ranked by the changes over the past 12 months and where these changes are equal to or greater than 1.5 percent, then the region is a candidate for spatial recession as the local economy would be experiencing GDP growth of at least three percent below its full employment potential (for each percentage point by which unemployment exceeds its 'natural rate', GDP falls short of its potential level by between two and three percentage points).

Table 4 shows the above figures, plus the averages for each region for 2008, the averages for 2009 and the changes from 2008 to 2009. This tables allows us a little more confidence with the unemployment figures for the smaller regions.

Labour Force Regions	Code	May 09	May 09 minus May 08
Unemployment Rate ; Outer South Western Sydney Statistical Region ; Persons ;	117	9.2	6.6
Unemployment Rate ; Inner Sydney Statistical Region ; Persons ;	110	8.9	6.0
Unemployment Rate ; Sunshine Coast Statistical Region ; Persons ;	310	9.8	5.8
Unemployment Rate ; Fairfield-Liverpool Statistical Region ; Persons ;	104	12.0	5.4
Unemployment Rate ; Western Adelaide Statistical Region ; Persons ;	406	8.5	4.3
Unemployment Rate ; Northern Beaches Statistical Region ; Persons ;	115	6.0	4.2
Unemployment Rate ; Inner Melbourne Statistical Region ; Persons ;	206	7.0	3.9
Unemployment Rate ; Outer Western Melbourne Statistical Region ; Persons ;	212	8.2	3.8
Unemployment Rate ; Far North Statistical Region ; Persons ;	302	9.1	3.5
Unemployment Rate ; South Eastern Statistical Region ; Persons ;	120	5.4	3.4
Unemployment Rate ; Wollongong Statistical Region Sector ; Persons ;	122	9.6	3.2
Unemployment Rate ; Central Western Sydney Statistical Region ; Persons ;	102	8.1	3.1
Unemployment Rate ; Central Highlands-Wimmera Statistical Region ; Persons ;	203	6.1	3.0
Unemployment Rate ; Outer Eastern Melbourne Statistical Region ; Persons ;	211	5.7	2.8
Unemployment Rate ; Hunter excluding New castle ; Persons ;	108	8.6	2.8
Unemployment Rate ; Mersey-Lyell Statistical Region Sector ; Persons ;	601	7.3	2.7
Unemployment Rate ; North Metropolitan Statistical Region ; Persons ;	504	4.9	2.6
Unemployment Rate ; Gold Coast North Statistical Region Sector ; Persons ;	303	6.3	2.6
Unemployment Rate ; South East Metropolitan Statistical Region ; Persons ;	506	5.3	2.5
Unemployment Rate ; Southern Melbourne Statistical Region ; Persons ;	214	6.9	2.5
Unemployment Rate ; North BSD Balance Statistical Region ; Persons ;	307	4.2	2.5
Unemployment Rate ; Barwon-Western District Statistical Region ; Persons ;	202	5.7	2.5
Unemployment Rate ; Southern Statistical Division ; Persons ;	604	4.3	2.5
Unemployment Rate ; Wide Bay-Burnett Statistical Region ; Persons ;	312	10.0	2.3
Unemployment Rate ; Canterbury-Bankstown Statistical Region ; Persons ;	101	7.6	2.1
Unemployment Rate ; Northern Adelaide Statistical Region ; Persons ;	402	7.2	2.0
Unemployment Rate ; Gosford-Wyong Statistical Region ; Persons ;	106	5.4	1.9
Unemployment Rate ; North Western Melbourne Statistical Region ; Persons ;	210	7.2	1.9
Unemployment Rate ; South and East BSD Balance Statistical Region ; Persons ;	309	6.0	1.8

Unemployment Rate ; Northern, North Western and Central West Statistical Divisions ; Persons ;	116	7.0	1.8
Unemployment Rate ; AUSTRALIAN CAPITAL TERRITORY ; Persons ;	801	4.1	1.7
Unemployment Rate ; Eastern Suburbs Statistical Region ; Persons ;	103	3.9	1.7
Unemployment Rate ; Greater Hobart Statistical Division ; Persons ;	603	4.6	1.6
Unemployment Rate ; Lower Western WA Statistical Region ; Persons ;	503	5.9	1.6
Unemployment Rate ; Brisbane City Outer Ring Statistical Region ; Persons ;	314	4.8	1.5
Unemployment Rate ; East Metropolitan Statistical Region ; Persons ;	502	5.1	1.5
Unemployment Rate ; Central Northern Sydney Statistical Region ; Persons ;	107	4.2	1.4
Unemployment Rate ; Inner Eastern Melbourne Statistical Region ; Persons ;	205	5.1	1.3
Unemployment Rate ; North Eastern Melbourne Statistical Region ; Persons ;	209	5.1	1.3
Unemployment Rate ; Lower Northern Sydney Statistical Region ; Persons ;	112	5.1	1.3
Unemployment Rate ; Brisbane City Inner Ring Statistical Region ; Persons ;	313	3.7	1.3
Unemployment Rate ; Eastern Adelaide Statistical Region ; Persons ;	401	5.5	1.1
Unemployment Rate ; Loddon-Mallee Statistical Region ; Persons ;	207	4.8	1.1
Unemployment Rate ; Inner Western Sydney Statistical Region ; Persons ;	111	7.0	1.0
Unemployment Rate ; Gold Coast South Statistical Region Sector ; Persons ;	304	5.6	0.8
Unemployment Rate ; Far West Statistical Division ; Persons ;	105	2.5	0.8
Unemployment Rate ; South West Metropolitan Statistical Region ; Persons ;	507	5.3	0.6
Unemployment Rate ; Remainder-Balance WA Statistical Region ; Persons ;	505	4.7	0.6
Unemployment Rate ; Illawarra excluding Wollongong ; Persons ;	109	7.7	0.6
Unemployment Rate ; Darling Downs-South West Statistical Region ; Persons ;	301	1.8	0.5
Unemployment Rate ; Northern-North West Statistical Region ; Persons ;	308	4.5	0.4
Unemployment Rate ; NORTHERN TERRITORY ; Persons ;	701	3.6	0.2
Unemployment Rate ; South Eastern Melbourne Statistical Region ; Persons ;	213	7.6	0.0
Unemployment Rate ; Murray-Murrumbidgee Statistical Region ; Persons ;	113	4.2	0.0
Unemployment Rate ; North Western Sydney Statistical Region ; Persons ;	118	6.9	0.0
Unemployment Rate ; New castle Statistical Region Sector ; Persons ;	114	4.7	-0.1
Unemployment Rate ; Mackay-Fitzroy-Central West Statistical Region ; Persons ;	306	4.1	-0.2
Unemployment Rate ; Northern Statistical Region Sector ; Persons ;	602	4.3	-0.3
Unemployment Rate ; Ipswich City Statistical Region ; Persons ;	305	4.7	-0.4
Unemployment Rate ; All Gippsland Statistical Region ; Persons ;	201	3.6	-0.6
Unemployment Rate ; St George-Sutherland Statistical Region ; Persons ;	121	2.8	-0.6

Unemployment Rate ; West Moreton Statistical Region ; Persons ;	311	4.6	-0.7
Unemployment Rate ; Central Metropolitan Statistical Region ; Persons ;	501	3.5	-0.8
Unemployment Rate ; Mornington Peninsula Statistical Region ; Persons ;	208	3.1	-0.9
Unemployment Rate ; Southern Adelaide Statistical Region ; Persons ;	404	3.4	-1.7
Unemployment Rate ; Southern and Eastern SA Statistical Region ; Persons ;	405	3.5	-1.8
Unemployment Rate ; Northern and Western SA Statistical Region ; Persons ;	403	4.5	-1.9
Unemployment Rate ; Richmond-Tweed and Mid-North Coast Statistical Regions ; Persons ;	119	7.0	-2.9
Unemployment Rate ; Goulburn-Ovens-Murray Statistical Region ; Persons ;	204	3.8	-3.2

**Table 3** shows the Unemployment levels for each region as at May 09 and the changes from May 08 to May 09. Any region with unemployment growth of 1.5 percent or more is in recession, according to our assumption. This applies to just over 50 percent of regions and is consistent with the national average of 1.6 percent unemployment growth to May (and to June).

This chart should be consistent with the stereotypes, in that the variables worst hit by unemployment growth to May should dominate those regions at the top of this list.

We've colour coded the regions by states and numbered them as well, with our own codes, so you can easily see which states are worst affected. These regions contain the mix of demographics we'd expect to see: lots of migrants in Sydney's west and lots higher income and higher mortgage areas in the inner city regions across the country.

At the bottom end, where the recession has not yet impacted, we see a fair bit of SA, lots of agricultural and mining regions and some of the blue collar Australian born industrial cities.

We think any reasonable reader would agree that splitting Australian into regions to help with the analysis of the various stages of the recession has some merit. You never know: Governments could even skew their fiscal stimulus to help those areas in the most genuine need. Some of the coastal retirement regions in Queensland wouldn't be a bad place to start – our modeling shows the Far North, Wide Bay and the Sunshine Coast not only have high unemployment growth, but that unemployment growth is outstripping our predictions from the modeling. These areas need a boost in confidence.

Labour Force Regions	Code	May 09 minus May 08				Av 09 minus Av 08
		May 09	May 08	Av 08	Av 09	
Unemployment Rate ; Far North Statistical Region ; Persons ;	302	9.1	3.5	5.6	9.9	4.2
Unemployment Rate ; Inner Sydney Statistical Region ; Persons ;	110	8.9	6.0	3.1	7.1	4.0
Unemployment Rate ; Fairfield-Liverpool Statistical Region ; Persons ;	104	12.0	5.4	6.9	10.7	3.9
Unemployment Rate ; Eastern Adelaide Statistical Region ; Persons ;	401	5.5	1.1	3.5	6.7	3.2
Unemployment Rate ; Southern Melbourne Statistical Region ; Persons ;	214	6.9	2.5	4.1	7.2	3.1
Unemployment Rate ; Barwon-Western District Statistical Region ; Persons ;	202	5.7	2.5	3.4	6.3	2.9
Unemployment Rate ; Outer South Western Sydney Statistical Region ; Persons ;	117	9.2	6.6	3.7	6.5	2.9
Unemployment Rate ; Western Adelaide Statistical Region ; Persons ;	406	8.5	4.3	5.6	8.3	2.8
Unemployment Rate ; South Eastern Statistical Region ; Persons ;	120	5.4	3.4	3.3	6.0	2.7
Unemployment Rate ; South East Metropolitan Statistical Region ; Persons ;	506	5.3	2.5	2.9	5.5	2.6
Unemployment Rate ; Outer Western Melbourne Statistical Region ; Persons ;	212	8.2	3.8	5.3	7.8	2.5
Unemployment Rate ; Wollongong Statistical Region Sector ; Persons ;	122	9.6	3.2	6.0	8.3	2.3
Unemployment Rate ; Northern Adelaide Statistical Region ; Persons ;	402	7.2	2.0	6.1	8.4	2.3
Unemployment Rate ; Sunshine Coast Statistical Region ; Persons ;	310	9.8	5.8	4.2	6.4	2.2
Unemployment Rate ; North Metropolitan Statistical Region ; Persons ;	504	4.9	2.6	2.7	4.9	2.2
Unemployment Rate ; West Moreton Statistical Region ; Persons ;	311	4.6	-0.7	3.7	5.9	2.2
Unemployment Rate ; South West Metropolitan Statistical Region ; Persons ;	507	5.3	0.6	3.5	5.5	2.1
Unemployment Rate ; Wide Bay-Burnett Statistical Region ; Persons ;	312	10.0	2.3	5.8	7.9	2.0
Unemployment Rate ; Inner Melbourne Statistical Region ; Persons ;	206	7.0	3.9	3.2	5.1	1.9
Unemployment Rate ; Northern Beaches Statistical Region ; Persons ;	115	6.0	4.2	2.4	4.2	1.8
Unemployment Rate ; Gosford-Wyong Statistical Region ; Persons ;	106	5.4	1.9	5.3	7.1	1.8
Unemployment Rate ; Outer Eastern Melbourne Statistical Region ; Persons ;	211	5.7	2.8	3.5	5.3	1.8
Unemployment Rate ; Murray-Murrumbidgee Statistical Region ; Persons ;	113	4.2	0.0	4.3	6.1	1.8
Unemployment Rate ; Central Western Sydney Statistical Region ; Persons ;	102	8.1	3.1	5.7	7.4	1.7
Unemployment Rate ; Canterbury-Bankstown Statistical Region ; Persons ;	101	7.6	2.1	6.4	8.1	1.7
Unemployment Rate ; Southern Statistical Division ; Persons ;	604	4.3	2.5	4.0	5.7	1.7



Unemployment Rate ; Gold Coast South Statistical Region Sector ; Persons ;	304	5.6	0.8	4.1	5.7	1.6
Unemployment Rate ; South Eastern Melbourne Statistical Region ; Persons ;	213	7.6	0.0	5.7	7.3	1.6
Unemployment Rate ; North Western Sydney Statistical Region ; Persons ;	118	6.9	0.0	6.2	7.7	1.6
Unemployment Rate ; Inner Western Sydney Statistical Region ; Persons ;	111	7.0	1.0	5.8	7.3	1.5
Unemployment Rate ; South and East BSD Balance Statistical Region ; Persons ;	309	6.0	1.8	4.4	6.0	1.5
Unemployment Rate ; Brisbane City Inner Ring Statistical Region ; Persons ;	313	3.7	1.3	2.7	4.2	1.5
Unemployment Rate ; Remainder-Balance WA Statistical Region ; Persons ;	505	4.7	0.6	3.4	4.8	1.4
Unemployment Rate ; Low er Northern Sydney Statistical Region ; Persons ;	112	5.1	1.3	3.0	4.4	1.4
Unemployment Rate ; New castle Statistical Region Sector ; Persons ;	114	4.7	-0.1	4.8	6.2	1.4
Unemployment Rate ; Low er Western WA Statistical Region ; Persons ;	503	5.9	1.6	3.4	4.7	1.3
Unemployment Rate ; Northern-North West Statistical Region ; Persons ;	308	4.5	0.4	3.1	4.4	1.3
Unemployment Rate ; Richmond-Tweed and Mid-North Coast Statistical Regions ; Persons ;	119	7.0	-2.9	6.9	8.3	1.3
Unemployment Rate ; Northern, North Western and Central West Statistical Divisions ; Persons ;	116	7.0	1.8	5.1	6.4	1.3
Unemployment Rate ; Greater Hobart Statistical Division ; Persons ;	603	4.6	1.6	3.7	5.0	1.3
Unemployment Rate ; Central Northern Sydney Statistical Region ; Persons ;	107	4.2	1.4	3.2	4.4	1.2
Unemployment Rate ; North Eastern Melbourne Statistical Region ; Persons ;	209	5.1	1.3	3.9	5.0	1.1
Unemployment Rate ; Inner Eastern Melbourne Statistical Region ; Persons ;	205	5.1	1.3	3.8	4.8	1.0
Unemployment Rate ; North Western Melbourne Statistical Region ; Persons ;	210	7.2	1.9	5.1	5.9	0.8
Unemployment Rate ; NORTHERN TERRITORY ; Persons ;	701	3.6	0.2	3.7	4.4	0.7
Unemployment Rate ; Eastern Suburbs Statistical Region ; Persons ;	103	3.9	1.7	2.6	3.3	0.7
Unemployment Rate ; East Metropolitan Statistical Region ; Persons ;	502	5.1	1.5	2.5	3.0	0.5
Unemployment Rate ; AUSTRALIAN CAPITAL TERRITORY ; Persons ;	801	4.1	1.7	2.7	3.2	0.5
Unemployment Rate ; Loddon-Mallee Statistical Region ; Persons ;	207	4.8	1.1	5.5	6.0	0.5
Unemployment Rate ; St George-Sutherland Statistical Region ; Persons ;	121	2.8	-0.6	3.9	4.3	0.4
Unemployment Rate ; Central Highlands-Wimmera Statistical Region ; Persons ;	203	6.1	3.0	6.6	6.9	0.3
Unemployment Rate ; All Gippsland Statistical Region ; Persons ;	201	3.6	-0.6	4.4	4.7	0.3
Unemployment Rate ; Central Metropolitan Statistical Region ; Persons ;	501	3.5	-0.8	3.3	3.5	0.3
Unemployment Rate ; Hunter excluding New castle ; Persons ;	108	8.6	2.8	5.3	5.4	0.1

Unemployment Rate ; Mornington Peninsula Statistical Region ; Persons ;	208	3.1	-0.9	4.4	4.2	-0.2
Unemployment Rate ; Ipswich City Statistical Region ; Persons ;	305	4.7	-0.4	4.7	4.5	-0.3
Unemployment Rate ; Gold Coast North Statistical Region Sector ; Persons ;	303	6.3	2.6	4.2	3.9	-0.3
Unemployment Rate ; Goulburn-Ovens-Murray Statistical Region ; Persons ;	204	3.8	-3.2	4.6	4.3	-0.3
Unemployment Rate ; Northern and Western SA Statistical Region ; Persons ;	403	4.5	-1.9	5.8	5.4	-0.5
Unemployment Rate ; Darling Downs-South West Statistical Region ; Persons ;	301	1.8	0.5	2.4	1.9	-0.5
Unemployment Rate ; Southern Adelaide Statistical Region ; Persons ;	404	3.4	-1.7	4.8	4.2	-0.5
Unemployment Rate ; Northern Statistical Region Sector ; Persons ;	602	4.3	-0.3	4.0	3.5	-0.5
Unemployment Rate ; Southern and Eastern SA Statistical Region ; Persons ;	405	3.5	-1.8	3.8	3.2	-0.6
Unemployment Rate ; Illawarra excluding Wollongong ; Persons ;	109	7.7	0.6	6.2	5.2	-0.9

**Table 4** is pretty much the same as Table 3, except we average out 2008 and 2009 figures to provide some more confidence that we are on the right track with some of the smaller regions, where sampling sizes in the monthly surveys are small.

West Moreton in Queensland is one region which looks a little worse in the average figures, compared the monthly figure for May. The same could be said for Richmond Tweed and Mackay. Gold Coast North on the other hand, looks a little better in the averages, compared to the monthly figures.

But, by and large, we see the same sort of mix of regions as we saw in Table 3. We feel confident we are looking at a model with some traction, which is what we'd hoped for, with variance explained of around 85 percent.