



National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

Exemplar for Internal Achievement Standard Economics Level 2

This exemplar supports assessment against:

Achievement Standard 91225

Analyse unemployment using economic concepts and models

An annotated exemplar is an extract of student evidence, with a commentary, to explain key aspects of the standard. It assists teachers to make assessment judgements at the grade boundaries.

New Zealand Qualifications Authority

To support internal assessment

	Grade Boundary: Low Excellence
1.	<p>For Excellence, the student needs to analyse unemployment comprehensively, using economic concepts and models.</p> <p>This involves:</p> <ul style="list-style-type: none"> • analysing the causes of changes in unemployment by comparing and/or contrasting their impact on unemployment • analysing the impacts of the changes in unemployment on various groups in New Zealand society • analysing by integrating changes shown on economic models into detailed explanations. <p>This student has analysed two causes of changes in unemployment, using the AS/AD and Labour Market models (1).</p> <p>The student has comprehensively integrated the Labour Market model and economic concepts (e.g. derived demand, seasonal unemployment, involuntary unemployment), explaining how and why the changes in the Labour market affect younger and older workers differently (2).</p> <p>The student has compared the similar impact of an increase in demand for labour on the various groups, integrating the Labour Market model (3).</p> <p>The student has compared and contrasted the effect of changes in unemployment on new, young workers entering the job market, and on temporary workers such as university students (4).</p> <p>For a more secure Excellence, the student could integrate the Labour Market model into the explanation of contrasting effects on young workers.</p> <p>For example, where the student states '<i>school leavers will find it difficult to find a job even after the university students leave Nelson</i>' (4), they could note that the supply of labour decreases from SL1 to SL2, and that the demand for labour falls as the seasonal work finishes (DL1 to DL).</p> <p>These additions could lead the student to draw a conclusion such as '<i>more school leavers are likely to become involuntary unemployed (U2; Q1-Q5 on Fig 5)</i>'.</p>

[Student has compared and contrasted the impact on unemployment caused by the increased minimum wages rates implemented from 1 April 2014 with the impact of increased consumer spending on unemployment in Nelson. Student illustrated the changes using the AS/AD and Labour Market models, and integrated these changes into the detailed explanation.] 1

Impacts of changes in unemployment on various groups

December in Nelson sees an interesting comparison between young workers under 25 and older workers between 35 and 50. For all workers in Nelson, demand for labour increases through November and December as we lead into Christmas and seasonal tourism and picking jobs start. Therefore, seasonal unemployment, which is people who are unemployed at certain times of the year because they work in industries where they are not needed all year round, decreases. 2

Due to increased demand for consumer goods in shops and tourist accommodation/activities with the holidays, businesses increase their demand for labour. This concept is known as derived demand, which means the demand for the resources (labour) comes from the demand for the goods or services they produce.

More demand for motor camp accommodation means that more services need to be provided so more workers are needed. This is shown on Figures 4 and 5 by an increase in demand for labour from DL to DL1. In both markets, there were workers who are involuntarily unemployed (wanted to work at the current wage but could not get work – Q1-Q2 on each model). 3

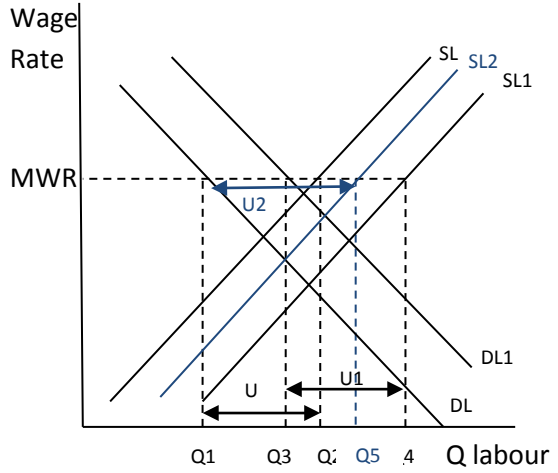
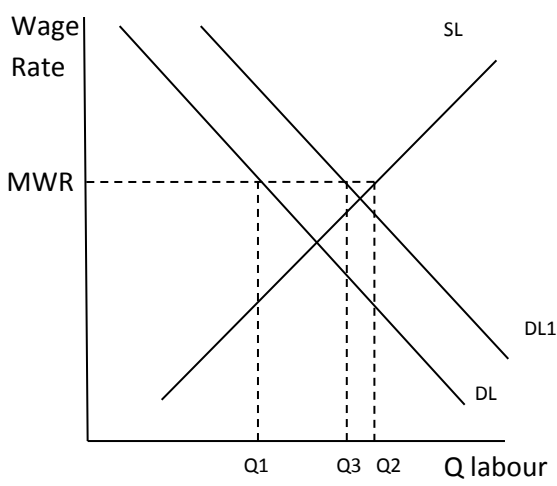
In Fig 4, the market for older workers 35-50 we see that the involuntary unemployment has fallen from Q1-Q2 to Q3-Q2. As businesses wanted more workers, employment increased from Q1 to Q3. Since the same number of older workers were seeking jobs, involuntary unemployment fell.

In Fig 5, the market for young workers under 25 we see the same increase in the demand for workers (many of the jobs are lower skilled jobs so I am assuming that employers will not discriminate between young or older workers if they all have the necessary skills).

However, at this time of year the supply of young workers in Nelson increases noticeably. This is due to students' finishing school and looking for employment and a large influx of university students returning to their parents for the holidays and wanting holiday work to pay for the next year of university. This is shown on the graph (Fig 5) by an increase in the supply of labour from SL to SL1. This means that involuntary unemployment in this age group, which was Q1-Q2 (U on Fig 5.), is largely unchanged despite the increase in jobs. The employment in this age group is Q1 to Q3, but the increased supply of labour means there is still involuntary unemployment from Q3 to Q4, it was U, it is now U1. 2

Fig 4. Labour Market for older workers 35-50

Fig 5. Labour Market for young workers



This means that Nelson young people will suffer from the negative effects of unemployment, while the older workers financially benefit during this time. According to the Christchurch Health and Development Study, people who are unemployed between the ages 16 and 21, are very likely to remain unemployed until the age of 25. This means that these school leavers will find it difficult to find a job even after the university students leave Nelson, when the demand for labour falls again as the seasonal work finishes. This means 4

that the school leavers are more likely to be involuntary unemployed than the university students and older workers.

Additionally, these students have matching qualifications to the next year's school leavers, but also now have a record of unemployment so they are more likely to become long term unemployed and they are now even less likely to get a job. In this case, a young worker who has been unemployed during the holidays is likely to find it more difficult to secure a permanent job in February, and may be stuck into having to accept part-time and seasonal low paying jobs. Unemployment in this situation can lead to mental problems such as depression, having less self-confidence and feeling unworthy.

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University students who could not secure work are also going to build up greater student loans meaning more borrowing from the government and less potential for these students to spend in the future once they secure jobs. However, this holiday unemployment is unlikely to affect their long-term employment, as their future employment is likely to be in a specialist labour market they are not part of yet.

	Grade Boundary: High Merit
2.	<p>For Merit, the student needs to analyse unemployment in depth, using economic concepts and models.</p> <p>This involves:</p> <ul style="list-style-type: none"> • providing a detailed explanation of causes of changes in unemployment using economic models • providing a detailed explanation of the impacts of changes in unemployment on various groups in New Zealand society. <p>This student has explained in depth two causes of changes in unemployment, using the AS/AD and Labour Market models (5).</p> <p>The student has explained, in depth, the impacts of structural change on various groups, using the Labour Market model and economic concepts (e.g. structural unemployment, involuntary unemployment) to explain how each group is affected by unemployment (6).</p> <p>The student has contrasted the impacts of structural unemployment for older and younger workers, using the Labour Market model (7).</p> <p>To reach Excellence, the student could compare and contrast the impacts of changes in unemployment in a 'greater than' or 'less than' sense, using relevant economic concepts.</p> <p>For example, the student could expand their conclusion (8) by noting that younger workers have fewer commitments and no dependents, so the impact is likely to be less stressful and have less long-term effects. The student could also note that younger workers are less affected by structural unemployment because they have more time to retrain and get another job in a different industry.</p> <p>Secondly, the two causes of changes in unemployment could be compared and/or contrasted in a greater than or less than sense, using economic models.</p>

[Student has provided a detailed explanation of two causes of changes in unemployment using the AS/AD and Labour Market models.]

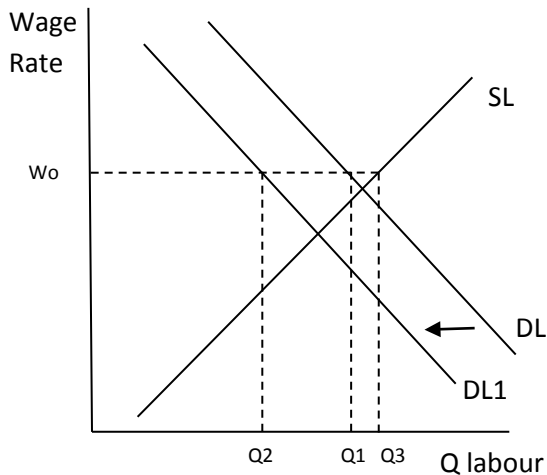
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Impacts of changes in unemployment on various groups

Structural changes due to the new technology means the business is now part of a declining sunset industry and the resulting decreased demand for the business's output means the demand for labour has decreased in this labour market, which is shown on the graph below.

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They need to lay off some workers to reduce costs, because currently they have Q_1 amount of workers, and they only want Q_2 amount of workers. This means involuntary unemployment has increased from $Q_3 - Q_1$ to $Q_3 - Q_2$ at the current wage W_0 .



Laying off workers is not nice for the business so they need to choose whom to layoff. Logically they layoff the least productive to reduce the wage cost first. If all other factors are the same, then they are more likely to lay off the younger workers.

Businesses will generally lay off the less experienced and younger workers before they lay off the older, more experienced workers that has a family that relies on that income to be fed and housed, etc.

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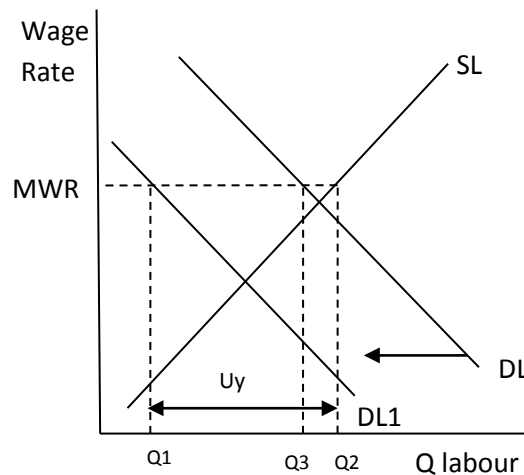
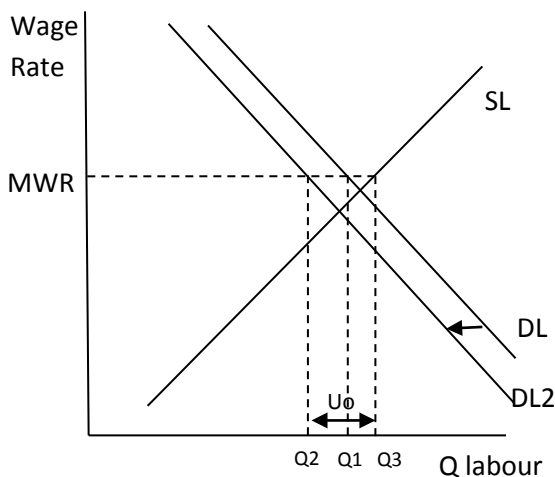
Statistics New Zealand says that youth unemployment was at 25% in 2012. Studies have shown that if someone between the ages of 16 and 21 is economically inactive, they are likely to be economically inactive at age 25.

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The government finds this worrying because there are such high rates of unemployment in people from the ages of 15 to 19, and if studies are correct, it means that those people will still be economically inactive at 25. This means that there will be a whole lot of people that will not have jobs, and will be on transfer benefits and have less income for consumption spending.

Labour Market for older workers

Labour Market for young workers



People from the age of 15 to 19 have a much higher and unsteady rate of unemployment than people from the age of 35-39. This can be due to the inexperience of many of the younger people. Also, because if a business needs to lay off some workers, they are more likely to lay off the newest workers, and this is quite often the younger workers. The fall in demand for young workers, DL to DL_1 is greater than the fall in demand for older workers DL to DL_2 as seen on the models above. This means the involuntary unemployed after the layoffs is greater with the young workers (U_y) than it is with the older workers (U_o) as is reflected in the unemployment statistics.

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While unemployment on a parent can affect both the parent and their children. If a child has unemployed parents it can cause them to have less wellbeing, and increase the chance of them having a chronic illness. If a parent is unemployed, it can affect their mental health. If they are unemployed, especially for a long period, they can develop low self-esteem. This can also go on to affect their children, by the parent starting

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to be neglectful, or even aggressive. Children who see this behaviour from their parents are more likely to imitate this behaviour. Which means that they may start to have low self-esteem, and become aggressive. These children are also more likely to smoke and drink alcohol when they are older. The similarities between the social effects on the two groups is that unemployment gives both negative mental effects.

	Grade Boundary: Low Merit
3.	<p>For Merit, the student needs to analyse unemployment in depth using economic concepts and models.</p> <p>This involves:</p> <ul style="list-style-type: none"> • providing a detailed explanation of causes of changes in unemployment using economic models • providing a detailed explanation of the impacts of changes in unemployment on various groups in New Zealand society. <p>This student has explained the change in cyclical unemployment due to increased consumption and investment supported by an AS/AD model (9).</p> <p>The student has explained sunset industries and how this causes unemployment (e.g. falling demand with real wage unable to fall), using a Labour Market model and concepts to support their analysis (10).</p> <p>The student has explained how sunrise industries affect unemployment (e.g. rising demand and maybe real wages), using a Labour Market model and examples (11).</p> <p>The student has explained how the change affects younger and older workers, and explained the impacts of cyclical unemployment on various groups in detail, using economic concepts and the AS/AD model (12).</p> <p>For a more secure Merit, the student could use the model to support the effects of changes in sunrise and sunset industries on different groups.</p> <p>For example, the student could explain that when older workers lose jobs in sunset industries due to the fall in demand, they are more likely to gain work in the sunrise industries, who need experienced workers due to increased demand for their product.</p> <p>This means that the gain in employment (Q1 to Q3 in Fig 4) is more likely to be made up of experienced workers, meaning that youth unemployment in Nelson will remain high.</p>

[Student explained the change in cyclical unemployment in Nelson due to increased consumer spending and investment supported by an AS/AD model.]

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A sunrise industry is a new, emerging industry often using new, innovative technology. Whereas, a sunset industry is an industry that is declining, one that has passed its peak/boom periods, and may result in structural unemployment if due to changes in technology or automation.

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The graph (Fig 5) below shows a sunset industry, with a decrease in demand for labour. This is shown by the shift from DL to DL1. This is because they do not need as many workers because their industry is in decline. This means that as the demand for their goods or services is on a decrease they do not need as many workers. This shows that demand for labour is derived from the demand for what they produce.

This will result in an increase in the unemployment rate (U to U1), because as the sunset business gets further into their decline, they will have to lay off more and more workers. Eventually the business may shut down, due to no demand or very little demand, for their goods or services. This means that everyone in that business will be unemployed. There will only be more involuntary unemployed people if the real wage does not drop (involuntary unemployment are those who want jobs at the current wage, but cannot get them).

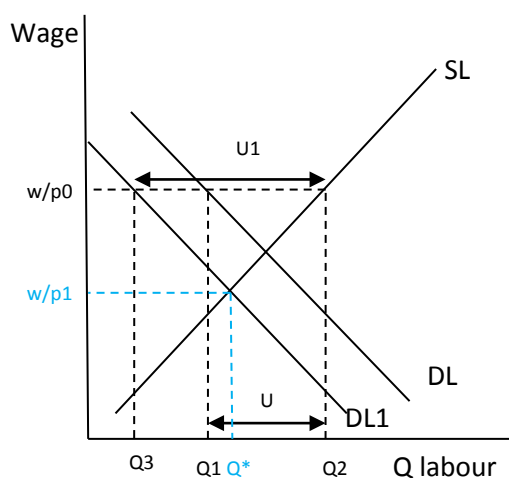
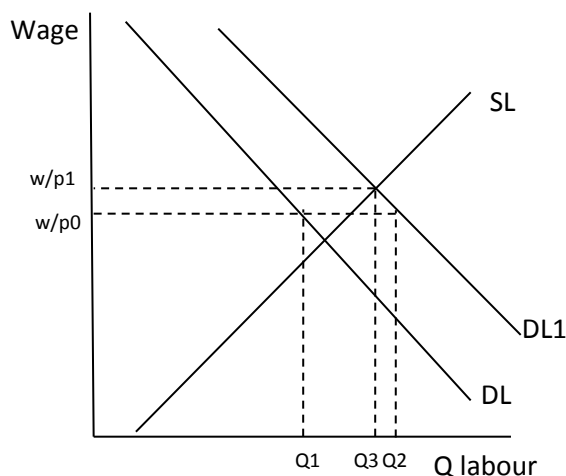
The wage would need to drop to w/p_1 for there to be no involuntarily unemployed, because at the wage of w/p_0 there are Q_3-Q_2 amount of people who are involuntarily unemployed. If the wage went down to w/p_1 there would be no involuntarily unemployed people, because less people are willing to work at this lower wage. However, the wage may not be able to drop. This could be because the workers are on a contract price, or because it is minimum wage.

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An example of a sunset business in Nelson is businesses involved in crop farming. Crop farm workers is the occupation that experienced the largest fall in employment. With them losing 257 jobs, and with crop farmers losing 190 jobs. Meat, poultry and seafood process workers also had a large fall in employment, with them losing 114 jobs.

Fig 4. Sunrise Industry

Fig 5. Sunset Industry



A sunrise business is a new or growing business. There are high demands for people to work in the health, and educational services in the Nelson region. With Nelson being an ideal place for elderly people to retire, it means that there is more of a demand for people to work in retirement villages as caregivers etc.

Although it is growing at slower rates than it was in the 2000's, it is still a growing industry. This is one of the many sunrise industries in Nelson. This industry will be a large contributing factor to the reason there has been a decrease in unemployment in Nelson. This means that more will be produced, which means that more workers will be needed. This is shown on the graph by the demand for labour shifting to the right from DL to DL1. Industries want to employ Q_2 amount of employees.

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The industry will need to increase their wage (unless there is sufficient involuntary unemployed workers at the current wage), otherwise they will not get any workers, as only Q_1 amount of workers want to work at the current w/p_0 wage, and they want Q_2 amount of workers. This means that they will need to raise their wages to w/p_1 for them to get the amount of workers that they want.

Involuntary unemployment was Q_1-Q_2 , but is now zero after the real wage rises to w/p_1 , and employment rose from Q_1 to Q_3 .

Because a sunrise industry is growing, it means that there is the potential for them to continually need more workers. This can lower the unemployment rate, so employment growth is found in the sunrise industry, but employment falls in the sunset industry. Overall employment may stay the same in the region; this could see structural unemployment in the sunset industries if the workers do not have the skills needed to gain the jobs in the sunrise industries.

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The effects of unemployment in these two situations differ for the young compared to the old.

Young workers have less experience and fewer commitments meaning they can be more flexible and move cities if they need too. Older workers have more commitments (family, community ties, mortgages) so are less flexible. This means that businesses are more likely to lay off younger workers first to keep their experienced older workers (all else being equal). It is also morally harder for a boss to tell someone with a mortgage who cannot leave the area that they have lost their job. This means that youth unemployment in Nelson is higher than in the 30 – 50 age group. This means that the stress of unemployment and subsequent possible side effects like depression are more likely in the younger unemployed. They are also more likely to migrate out of the Nelson area as they have less ties so are more able to look for work in other places like Christchurch.

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[Student also explained the impacts of the change in cyclical unemployment on various groups in detail using economic concepts and the AS/AD model.]

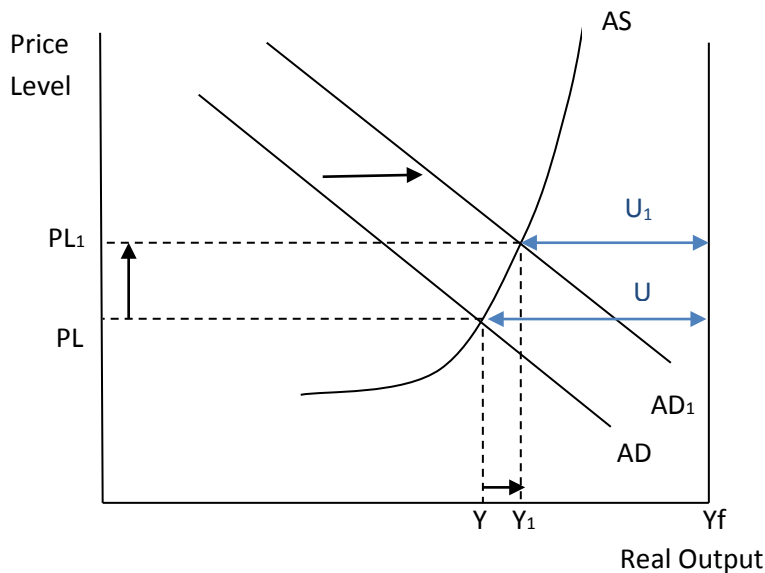
	Grade Boundary: High Achieved
4.	<p>For Achieved, the student needs to analyse unemployment using economic concepts and models.</p> <p>This involves:</p> <ul style="list-style-type: none"> • identifying, defining or describing unemployment concepts • providing an explanation of causes of changes in unemployment using economic models • providing an explanation of the impacts of changes in unemployment on various groups in New Zealand society. <p>This student has explained how decreased demand for onshore fish processing affected local unemployment, using economic concepts and the Labour Market model (13).</p> <p>The student has used economic concepts (e.g. cyclical, structural unemployment), and the AS/AD model, to explain the change in unemployment caused by higher incomes in China (14).</p> <p>The student has explained how this change in unemployment affects households and producers (15).</p> <p>The student has explained the impacts of the change in demand for onshore fish processing on local groups in detail, using economic concepts and the Labour Market model (16).</p> <p>To reach Merit, the student could explain why higher world incomes would increase exports and therefore why AD increases.</p> <p>For example, the student could explain that higher world incomes will increase demand in China for luxury items such as a more protein rich diet. This is what New Zealand produces, so Chinese consumers will want more of our exports. Since AD looks at the planned purchases of the 4 groups ($AD=C+I+G+X$), then exports (X) will rise so AD increases to AD1.</p> <p>Secondly, the student could use the model and the concept of derived demand to support a detailed explanation of the effects on households and producers.</p>

[Student explained how decreased demand for onshore fish processing affected local unemployment using the Labour Market model.]

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If overseas demand for our exports rises because of rising world incomes like in China then aggregate demand would increase to AD₁ as exports rise. With greater aggregate demand then output will increase from Y to Y₁ on the AS/AD model.

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This means that unemployment in NZ will fall from $Y - Y_f$ to $Y_1 - Y_f$, as seen on the model U decreases to U_1 . Since this is growth in the whole economy, then it is an upturn in the trade cycle and less cyclical unemployment as jobs that had been lost when the economy was weak would now be picked up again. The unemployment is not structural as the workers have the necessary skills or work experience to pick up the new jobs, and had only been unemployed because of the weak AD.

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With more jobs being created, households will have greater incomes and a better standard of living. They will have reduced stress and better health. They will have extra costs like childcare to be able to take the new jobs so some may find that their incomes won't really increase as much as those without children. This extra childcare will create jobs for others and these people will get the benefits of the new childcare jobs.

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Producers will find it easy to produce more as they can increase the hours of existing workers, using up spare capacity first before they employ new staff. They may however find it hard to get all the skilled workers they want as some may have left the area (migrated) to find extra work overseas. Some producers may want to produce more for China in areas that the workers do not have the existing skills for, and this may mean extra costs to train the workers or extra immigration of trained workers.

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[Student also explained the impacts of the change in demand for onshore fish processing on local groups in detail, using economic concepts and the Labour Market model.]

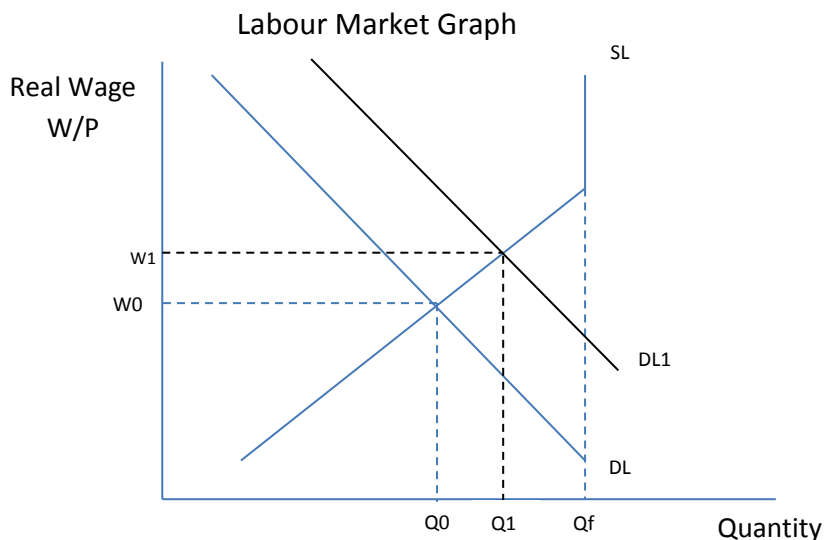
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	Grade Boundary: Low Achieved
5.	<p>For Achieved, the student needs to analyse unemployment using economic concepts and models.</p> <p>This involves:</p> <ul style="list-style-type: none"> • identifying, defining or describing unemployment concepts • Providing an explanation of causes of changes in unemployment using economic models • providing an explanation of the impacts of changes in unemployment on various groups in New Zealand society. <p>This student has explained how the global recession caused more cyclical unemployment in New Zealand, using the PPF model (17).</p> <p>The student has used the Labour Market model to explain the changes in unemployment caused by a sunrise industry (18).</p> <p>The student has briefly explained how younger and older workers could be affected by a sunrise and sunset industry (19).</p> <p>The student has explained the impacts of the global recession on households and producers in New Zealand, using economic concepts and the AS/AD model (20).</p> <p>For a more secure Achieved, the student could use the Labour Market model to explain the changes in unemployment caused by a sunset industry (21). Concepts such as structural unemployment or derived demand could be used to provide more explanation of how or why a sunrise and sunset industry increases or decreases unemployment for younger and older workers.</p>

[Student has explained how the global recession caused more cyclical unemployment in New Zealand using the PPF model.]

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A sunrise industry is an industry that is growing and needs more workers, so sunrise industries are good for both society and the economy.



Because it creates new jobs for people to work and increases the economic output of the country. Demand for workers increases from DL to $DL1$ and more workers Q_1 are employed at a higher wage W_1 .

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A sunset industry is an industry that is either getting smaller so there will be fewer jobs and there will be more unemployment and less economic output. Alternatively, the industry is closing down and it will cease to produce economic output for the country and will no longer need any workers so unemployment will rise.

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If an industry is in a sunrise stage then a positive economic effect could be that more youth workers are getting jobs because of more demand for workers. Because they are cheaper than older, more experienced workers. Older, more experienced workers would still be needed but not as many.

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If the industry is in a sunset stage then a negative economic effect could be that many of the youth workers will be laid off work, as their services will no longer be needed. Youth workers will be affected a lot but many of the older, more experienced workers will be kept on so the effect on the older population of workers would only change slightly.

[Student also explained the impacts of the global recession on households and producers in New Zealand, using economic concepts and the AS/AD model.]

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	Grade Boundary: High Not Achieved
6.	<p>For Achieved, the student needs to analyse unemployment using economic concepts and models.</p> <p>This involves:</p> <ul style="list-style-type: none"> • identifying, defining or describing unemployment concepts • Providing an explanation of causes of changes in unemployment using economic models • providing an explanation of the impacts of changes in unemployment on various groups in New Zealand society. <p>This student has partially explained how increasing the minimum wages rates (MWR) would affect unemployment (22).</p> <p>The student has identified a second cause of unemployment (i.e. the global recession), and has used a PPF model to illustrate unemployment and referred to the AS/AD model (23).</p> <p>The student has partially explained the impacts of the global recession on various groups (24).</p> <p>To reach Achieved, the student could use economic concepts when explaining the causes of unemployment (e.g. cyclical unemployment, derived demand). The student could use the models to show the changes caused by the events, rather than merely illustrating unemployment. Additionally, the student could explain the impacts of the global recession and increased MWR on various groups using the presented models and economic concepts.</p>

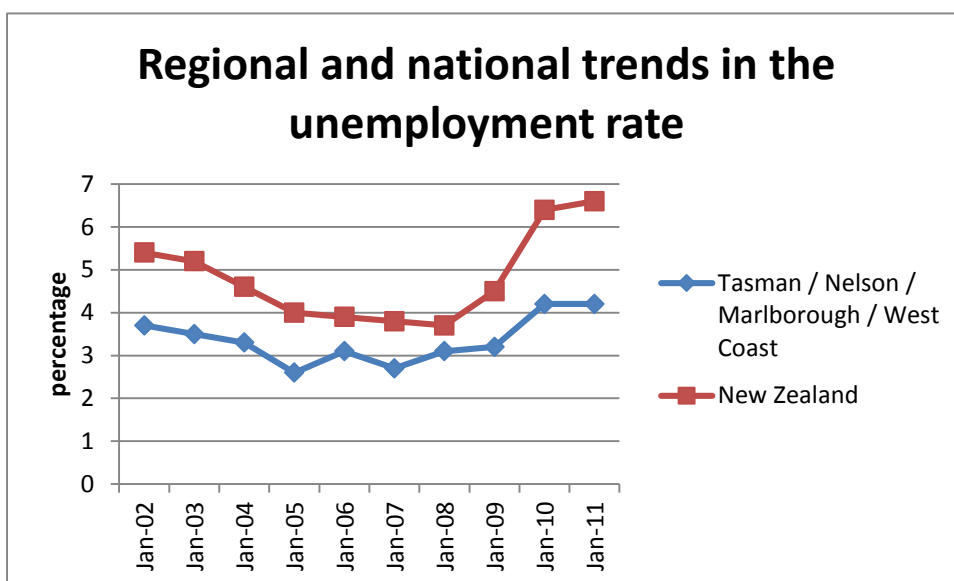
[Student has partially explained how increasing the minimum wages rates (MWR) would affect unemployment. A Labour Market model was presented with an existing MWR, but the changes to MWR, QDL, QSL, and voluntary and involuntary unemployment were not shown and explained.]

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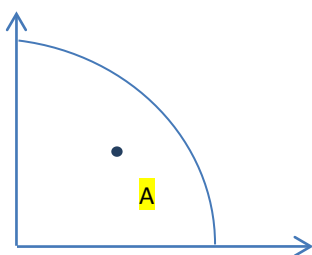
Unemployment fell from 2002 to 2005 due to Nelson/ Tasman having an economic boom with lots of tourism and high house prices. This has created wealth, spending and jobs. However, unemployment in Nelson increased from 2.7% in March 2007 to 4.2% in March 2011.

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Unemployment rose due to job losses from major producers in the Nelson region; especially at Sealords, Nelson Pine Industries and Nelson Forests Limited caused by the global recession. This downturn meant many jobs were lost.



Production Possibility Frontier



Since A is inside the production possibility frontier, it shows unemployment and this was caused by the global recession. Unemployment can also be shown on an AS/AD model, since the economy is below full employment (Y_f) it has unemployed resources.

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Unemployed workers will have more financial hardship and greater stress. Some will choose to leave the area to find work – even go to Australia like the logger who did not wish to be named, said he would move out of Nelson, and would probably go to Australia. On-going unemployment also means that more and more people apply for each job and it is possible that you will keep missing out, even if you are a good worker, and this will make you feel worse and worse. This also causes financial stress for others as lower demand means lower profits and will also mean more of the governments tax income will need to be spent on Unemployment benefits and other assistances.

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