



**St Paul's Centre of Excellence for  
Agricultural Science and Business  
Developmental Evaluation**

Progress Report

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## INTRODUCTION

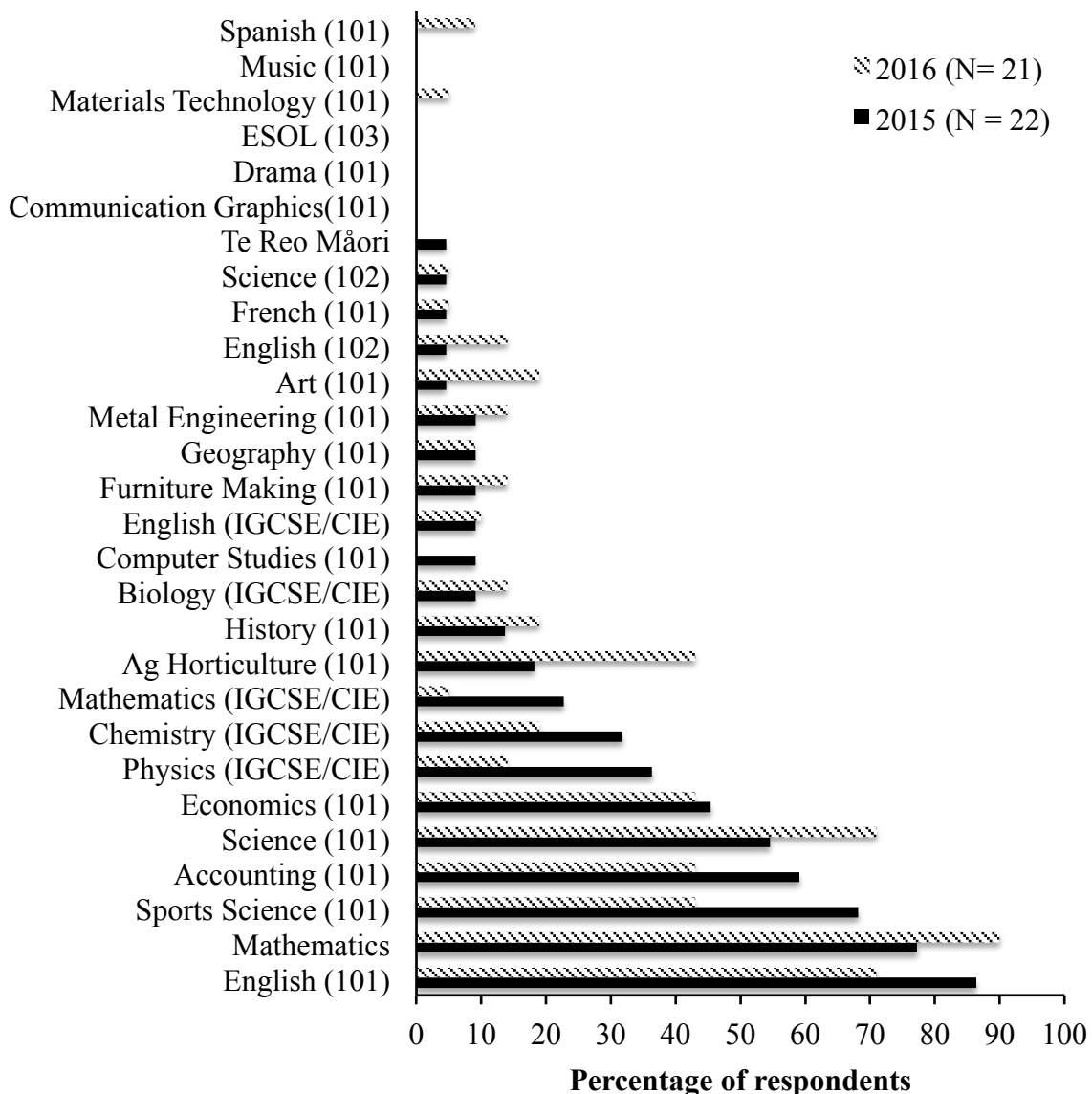
The focus for the developmental evaluation of the Centre of Excellence for Agricultural Science and Business/Agribusiness programmes at St Paul's Collegiate School in 2015/16 has been on developing an understanding of why students had chosen to be involved in the programmes and their perceptions of the programmes after completing two years of study. Students in each of programmes were surveyed at the beginning of each year to ascertain their reasons for being involved in one of the four programmes.

This report provides a detailed comparison of student responses in the 2015/16 years. Commentary is provided on the similarities and differences of the student responses in each of the two years. The report details aspects such as subjects taken in the previous year, time taken to enrol, sources of enrolment information, factors influencing enrolment decisions, subjects complementing programme subjects, demographics, respondent residential location, caregiver occupations and the likelihood that respondents will engage in occupations in agricultural related industries in the future.

This report will be followed by a synopsis of focus groups conducted in November with the present cohorts of students.

In February 2017, surveys will be conducted with the students involved in the programme at other partnership schools.

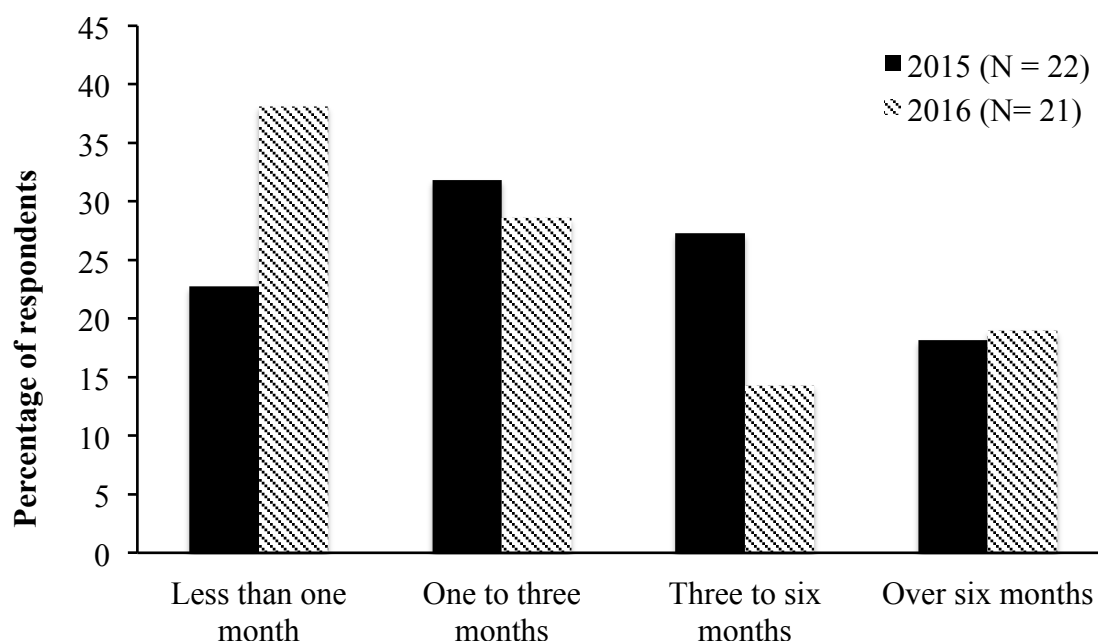
## CENTRE OF EXCELLENCE FOR AGRICULTURAL SCIENCE AND BUSINESS (201) PROGRAMME SURVEY RESULTS IN 2015 AND 2016



**Figure 1. Subjects respondents completed standards/IGCSE/CIE courses for in 2014 (N = 22) and 2015 (N = 21)**

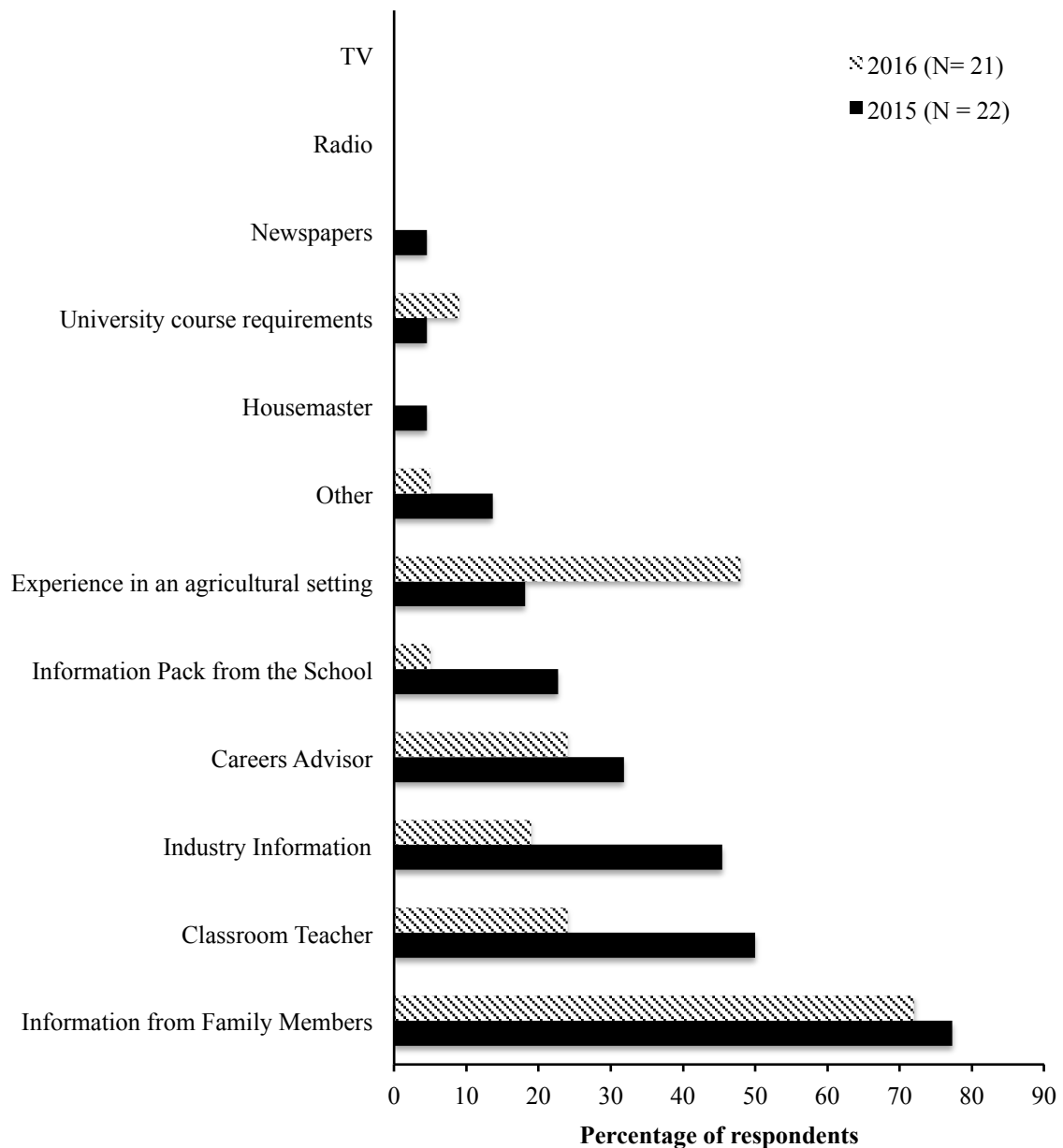
It should be noted that the figures in Figure 1 above relate to the subjects that students took in the 2014 and 2015 years. The surveys, however, were distributed in 2015 and 2016.

The survey results indicate that all of the students in the Centre of Excellence for Agricultural Science and Business (201) course took Mathematics and English as core subjects, and a range of sciences (including Biology, Physics, Chemistry and Science) in 2014 and 2015. Interestingly about 70% of respondents were involved in the Sports Science programme.



**Figure 2. Time taken for students to consider enrolling in the Centre of Excellence for Agricultural Science and Business Programme (201)**

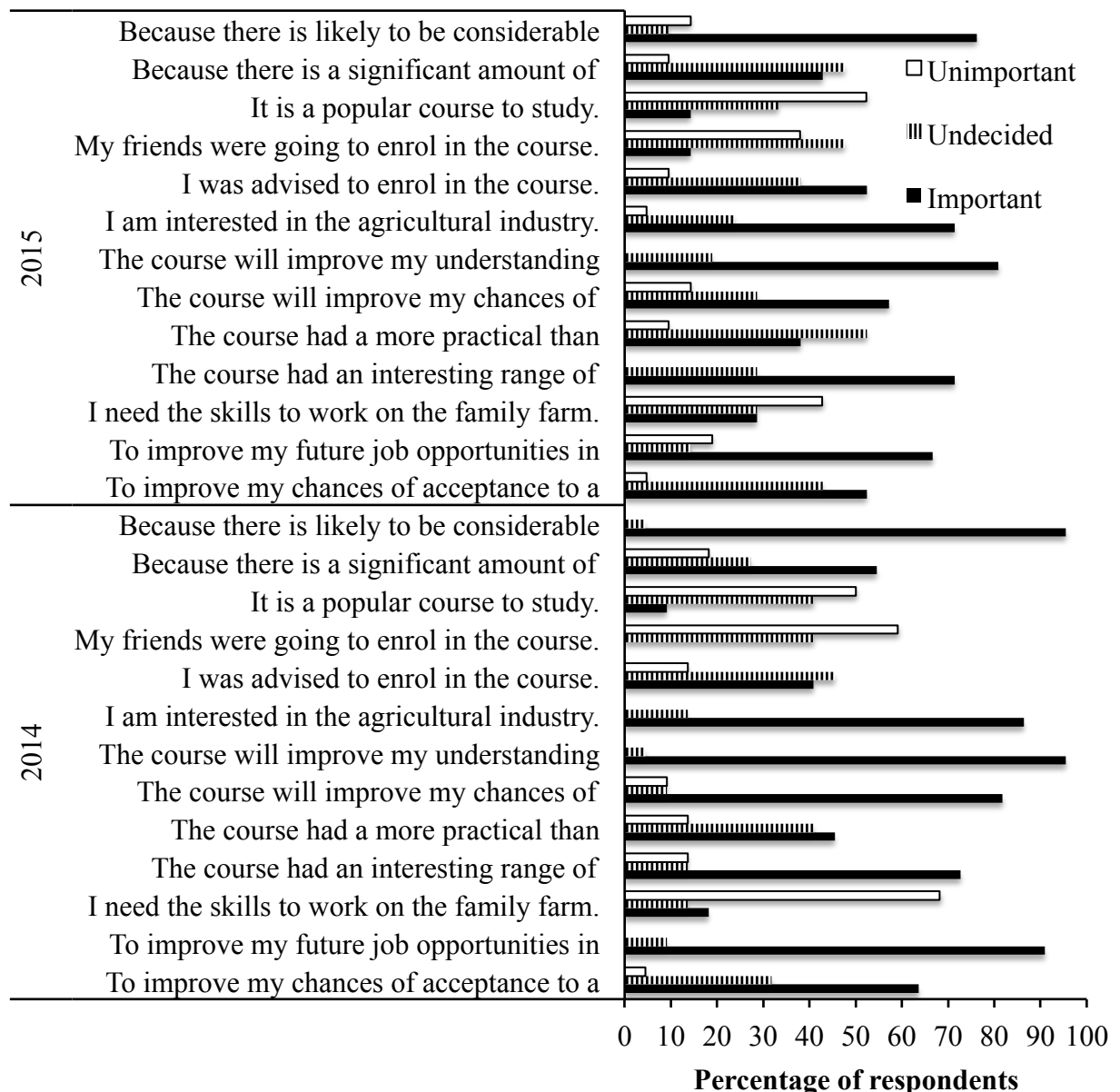
Figure 2 shows that most of those students considering enrolling in the Centre of Excellence for Agricultural Science and Business Course (201) took between one and six months to consider their enrolment, with around a third taking between one and three months. Figure 2 indicates that in 2015 20% more students indicated that they took less than one month to consider enrolling in the Centre of Excellence for Agricultural Science and Business (201) programme than had a similar group the previous year. This might indicate that students had more access to information about the programmes that were available in the second year.



**Figure 3. Sources of information students used when deciding on whether to take the Centre of Excellence for Agricultural Science and Business Programme (201) in 2015 and 2016.**

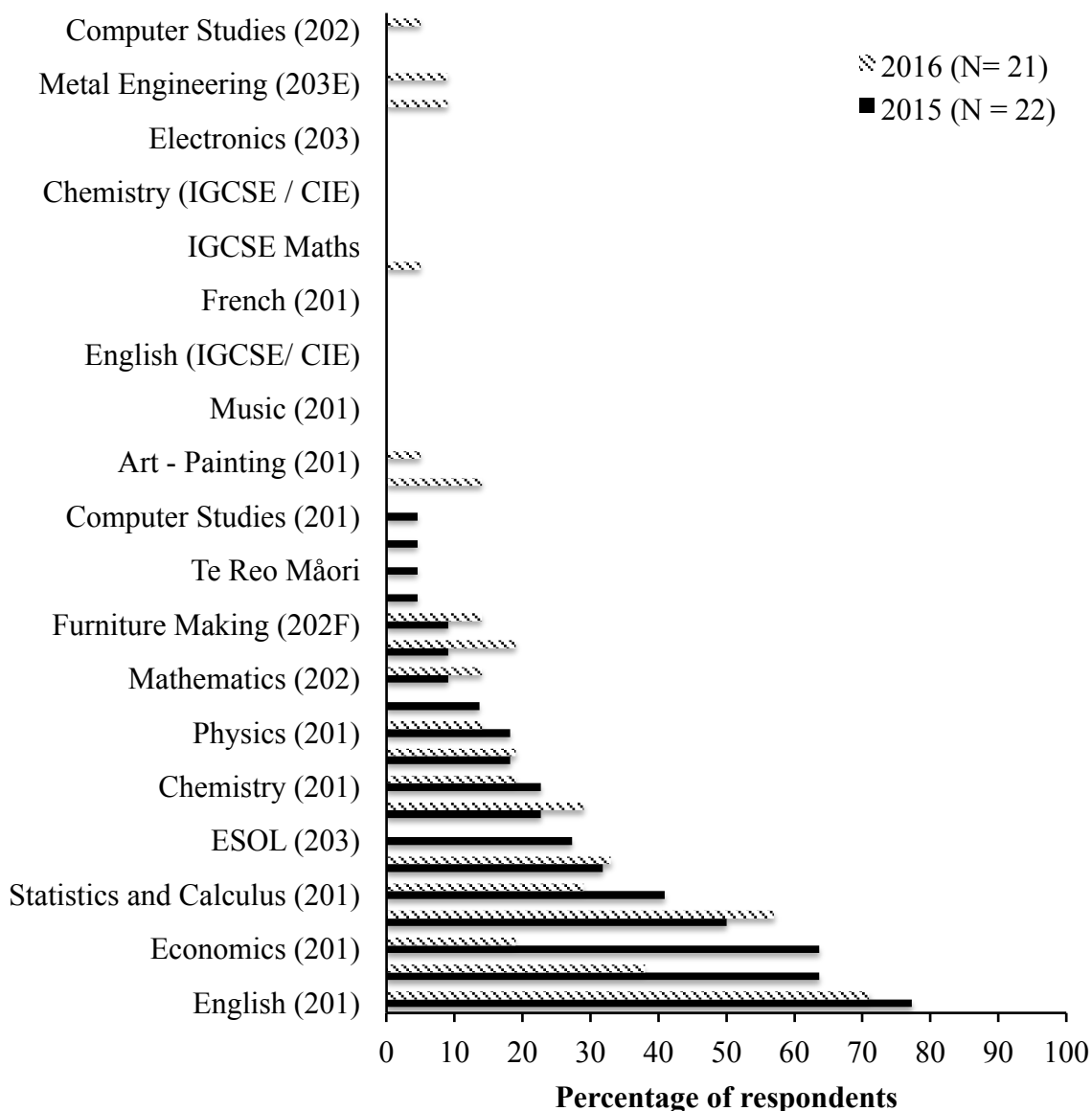
Figure 3 shows that the main sources of information students used when making the decision to enrol in the programme were family members, classroom teachers, industry information and careers advisors.





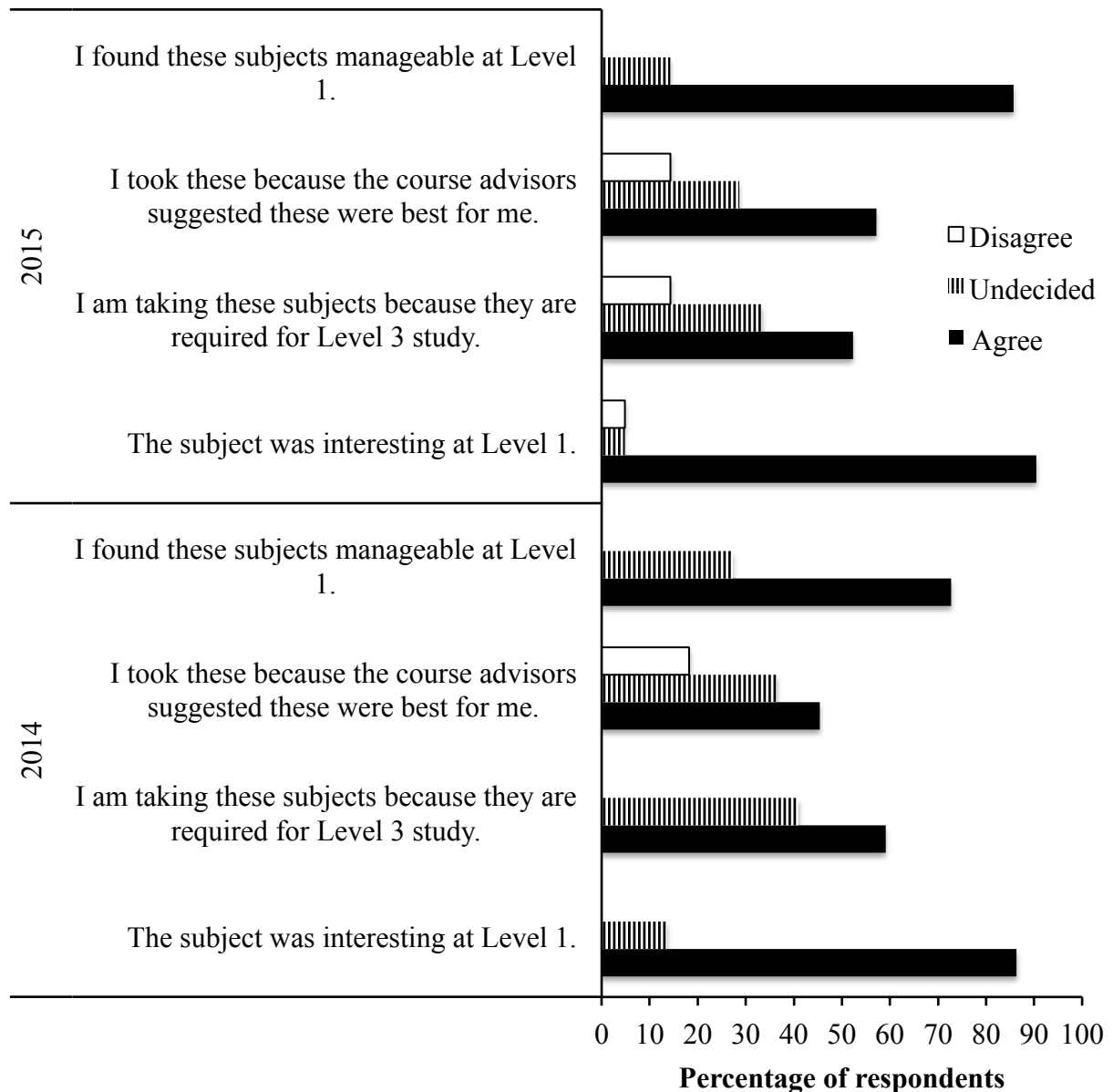
**Figure 4. Factors influencing student decisions to enrol in the Centre of Excellence for Agricultural Science and Business Programme (201).**

Figure 4 indicates that respondents had enrolled in the course because they were generally interested in the agriculture industry, they wanted to increase their understanding of the agricultural industry and because they considered that there were likely to be a number agricultural-science/agribusiness job opportunities available in the next few years.



**Figure 5. Courses students have chosen to study in 2015/2016 to complement the Centre of Excellence for Agricultural Science and Business Programme (201).**

Figure 5 indicates that students chose to study English, Mathematics, and Statistics to complement the core programme subjects with smaller numbers choosing to take Chemistry and Physics. The number of students involved in the programme who are taking Sports Science to complement the (201) compulsory subjects is somewhat surprising. It might be interesting to find out from students what the link was between the two. That is Sports Science and the Centre of Excellence for Agricultural Science and Business Programme (201).



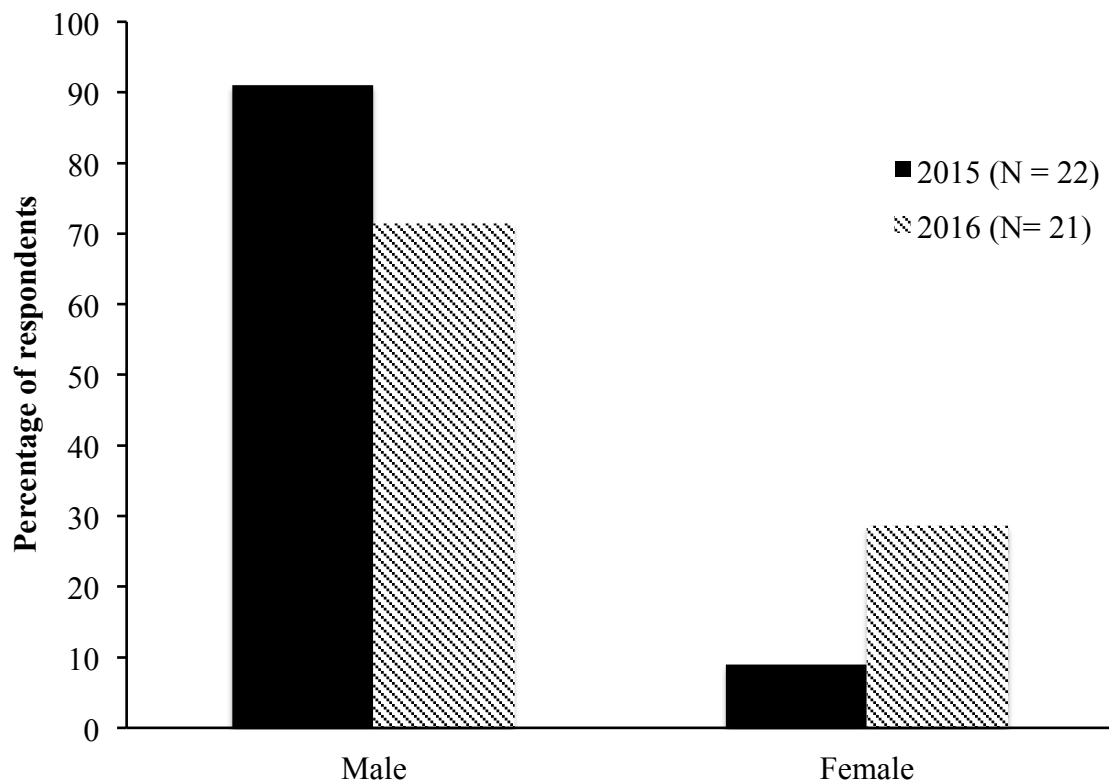
**Figure 6. Reasons for choosing these subjects to complement the standards that students will complete as part of the Agricultural Science and Business (201) programme.**

Figure 6 indicates that the main reason for choosing a subject to complement the Centre of Excellence for Agricultural Science and Business (201) programme was that the students had found it interesting at Level 1. A number of students also indicated that they had made their choice on the basis of subject manageability and the fact that the subject may have been a pre-requisite for Level 3 study.

**Table 1. Knowledge, skills and understanding expected to be developed by students as a result of participating in the Centre of Excellence for Agricultural Science and Business Programme (201) in 2015 & 2016**

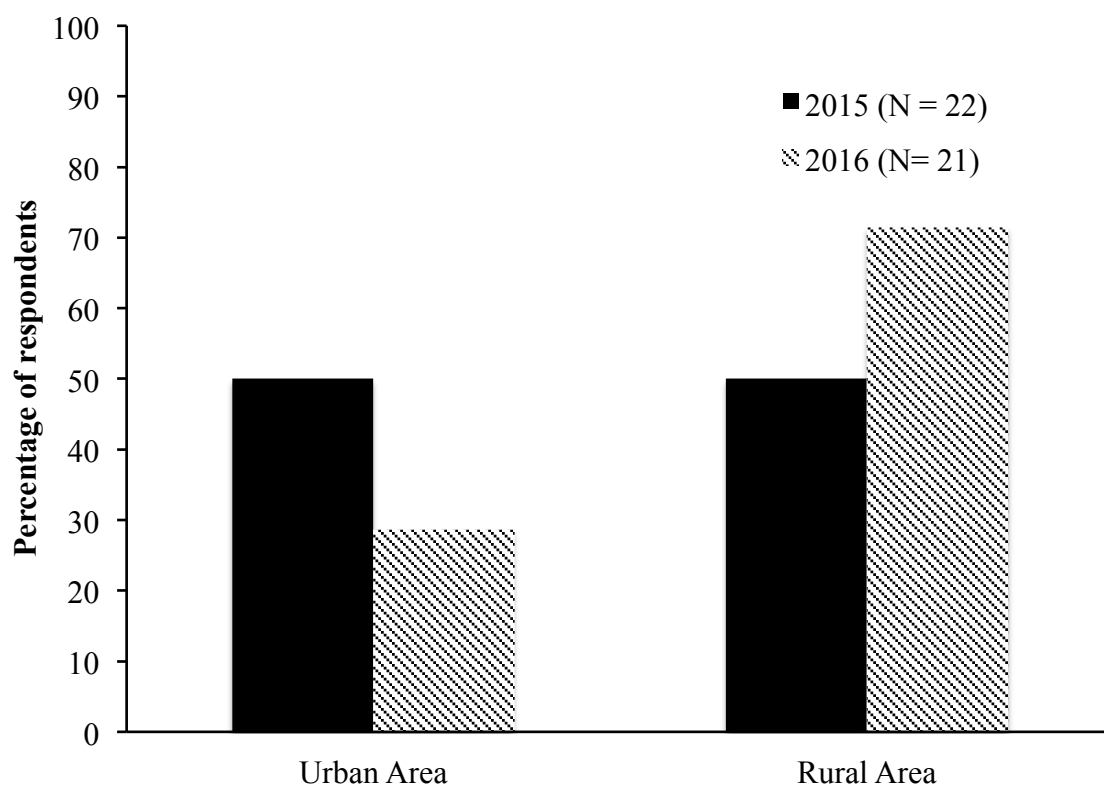
Student Responses
A better understanding of all different sectors of agriculture and chose what i may want to do for a job.
A more developed knowledge in the agriculture industry.
A more general knowledge and understanding of the agricultural industry and also to see whether I would like to continue to study under agriculture in the future.
An overall great knowledge of overall agriculture.
Being able to understand the science and finances behind Ag in NZ.
Better understanding of how to manage crops etc.
Better understanding of NZ's farming agricultural.
Better understanding of the science and practical side of farming.
Business knowledge mostly I am not very interested in agricultural techniques.
Business understanding.
Gain more of a understanding of how to run a farm and grow pasture.
How to choose the best plants to grow.
Knowledge and skills to do with the agricultural sector.
Learn about NZ's AG Business.
More development into growing pasture.
No how to find and do farm projects and got better at farming and the accounts.
Skills in many different courses. This will help me because I am thinking of doing many different things that are in the course.
To be able to find out more about New Zealand AG Business.
To be able to have the ability to qualify for university.
To gain a deeper understanding of the agriculture sector in New Zealand, both the sciences and finances.
To have a better understanding of how to run a farm.

Table 1 identifies a range of comments made by students relating to what they expected to get out of the programme in terms of knowledge skills and understanding. A number suggested that they wanted to develop knowledge of the agricultural industry, agri-business and the skills associated with both. These should be considered when designing the achievement standards in the future.



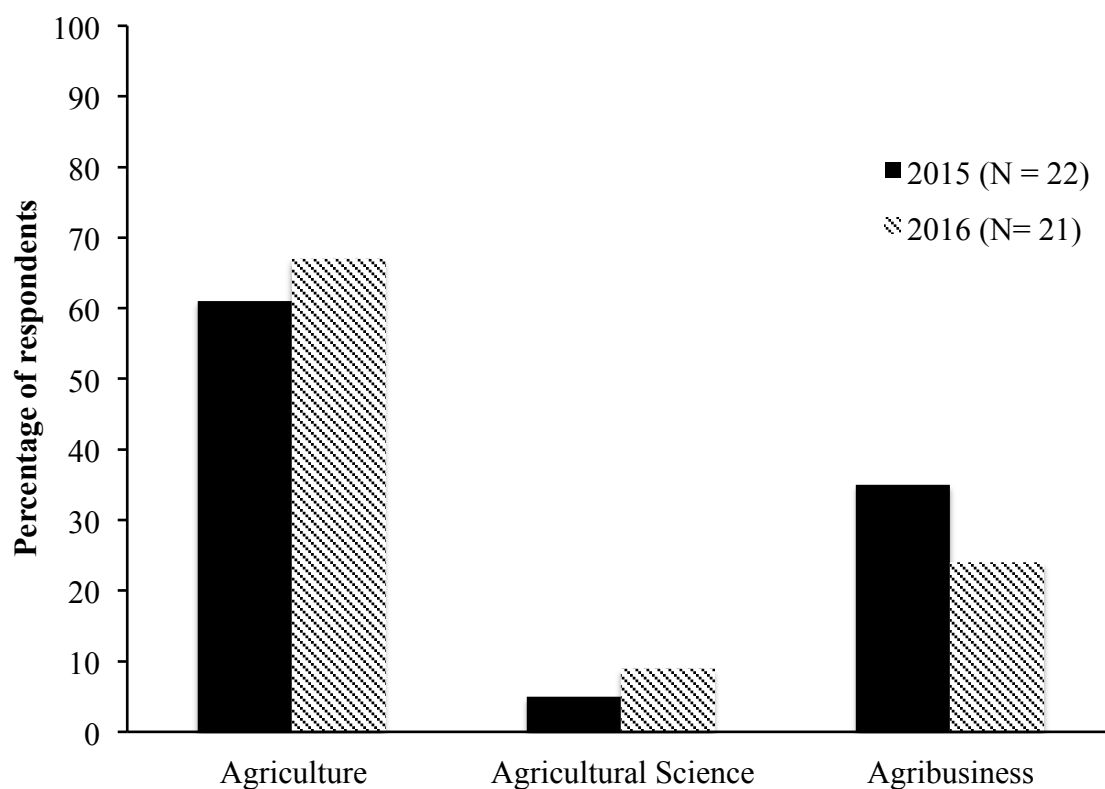
**Figure 7. Respondent Demographic information for Centre of Excellence for Agricultural Science and Business Programme (201) respondents in 2015 & 2016**

Over 90% (20/22) of the respondents in the 2015 class were males while in 2016 that proportion was lower at 70%. The higher proportion of males to females suggests that the School might consider why there is such an imbalance and the possible reasons for it. They may be able to be proactive to identify the sorts of agricultural-science and agri-business occupations that female students might like to be involved in and provide these students with information relating to the possibilities.



**Figure 8. Residential location of the Centre of Excellence for Agricultural Science and Business Programme (201) respondents in 2015 & 2016**

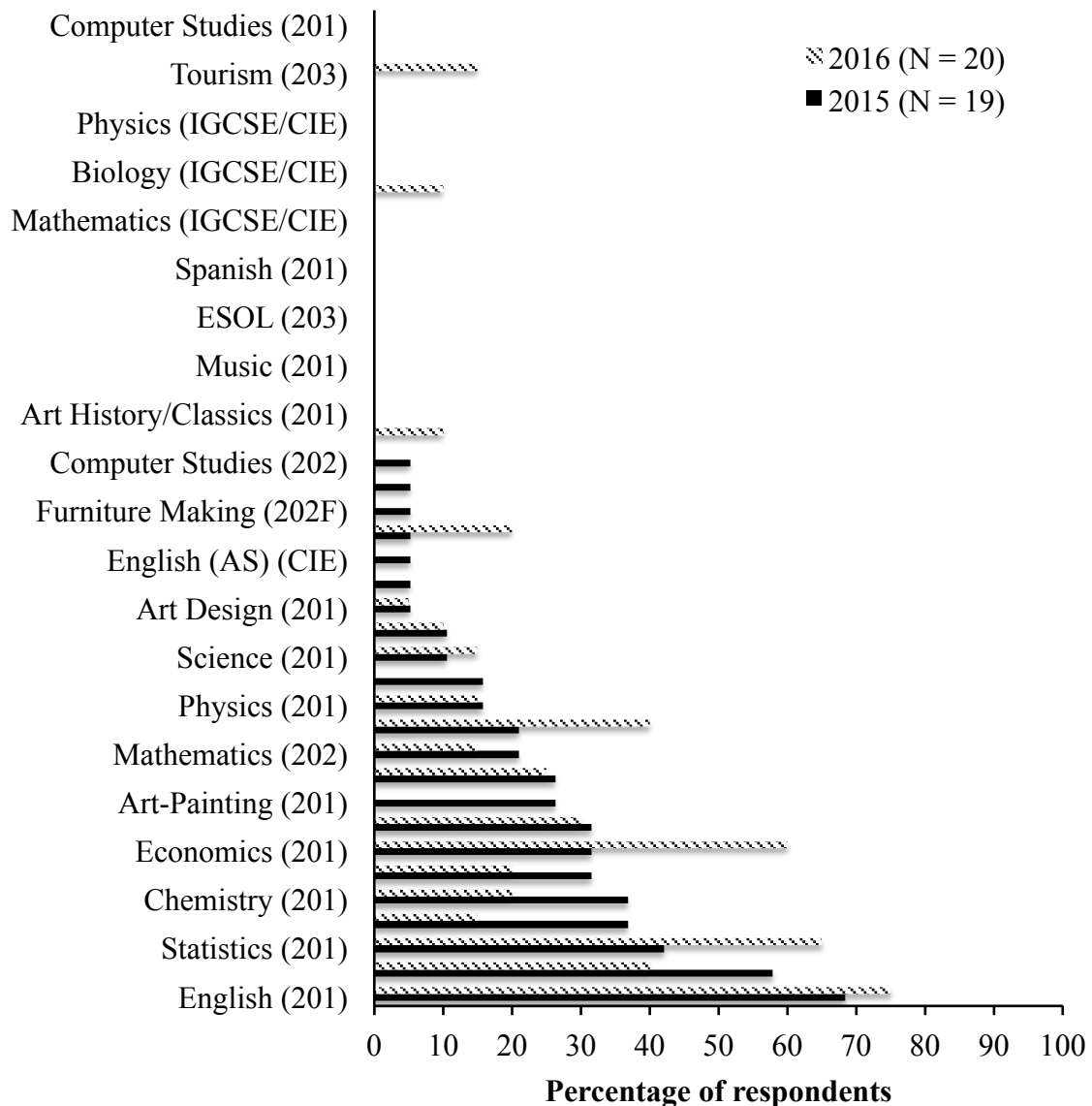
Interestingly, from Figure 8 there is a relatively even split between rural and urban dwellers in 2015. In 2016, there were more students from rural areas, although not significantly more.



**Figure 9. Caregiver occupations**

Figure 9 indicates that in both 2015 and 2016 a large portion of caregivers of respondents are involved in agricultural and agri-business occupations. There is, however, only one respondent caregiver in 2015 and two in 2016 who are involved in agricultural science. This might suggest that there is the opportunity for students to take a programme that will lead towards tertiary study in agricultural science and being involved in employment in the area.

## CENTRE OF EXCELLENCE FOR AGRICULTURAL SCIENCE AND BUSINESS (301) PROGRAMME SURVEY RESULTS IN 2015 (n = 19) and 2016 (n = 20)



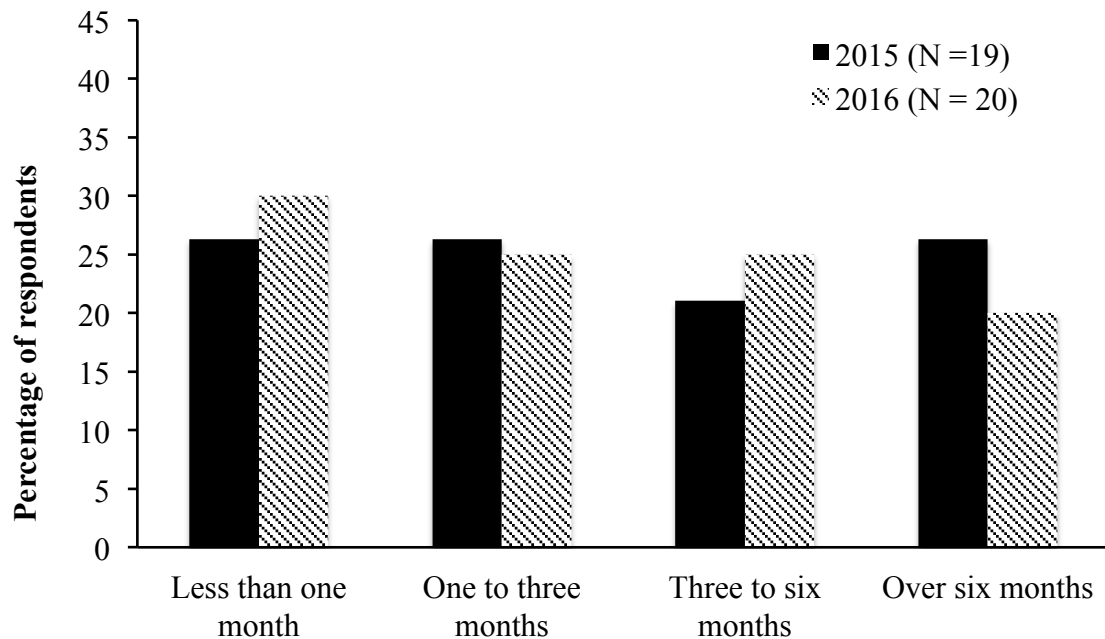
**Figure 10. Subjects students completed standards/IGCSE/CIE courses in 2014 and 2015.**

It should be noted that the figures in Figure 10 above relate to the subjects that students took in the 2014 and 2015 years. The surveys, however, were distributed in 2015 and 2016.

Figure 10 indicates that in 2015 those enrolled in the Centre for Excellence Agricultural Science and Business Course (301) course took courses in English, Mathematics, Mathematics with Calculus and Mathematics with Statistics, Biology and Chemistry in 2014. There were lesser numbers of students who had taken Economics, Accounting and Geography and History in Year 12. This might indicate that the programme has had some impact on the Social Sciences. Those that enrolled in the Centre of

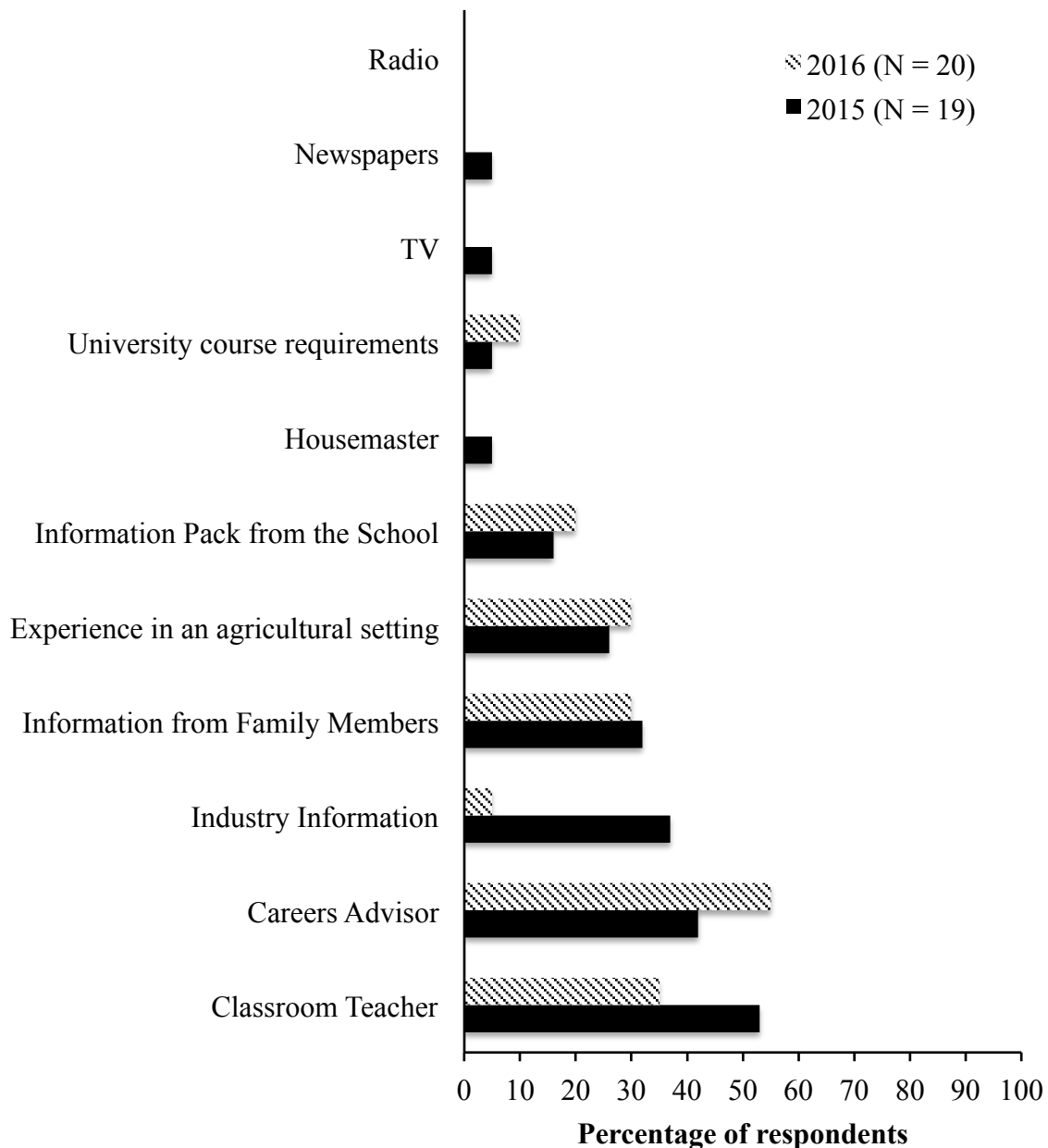


Excellence for Agricultural Science and Business Course (301) in 2016 took courses in English, Mathematics with Statistics, Economics, Accounting and History in 2015.



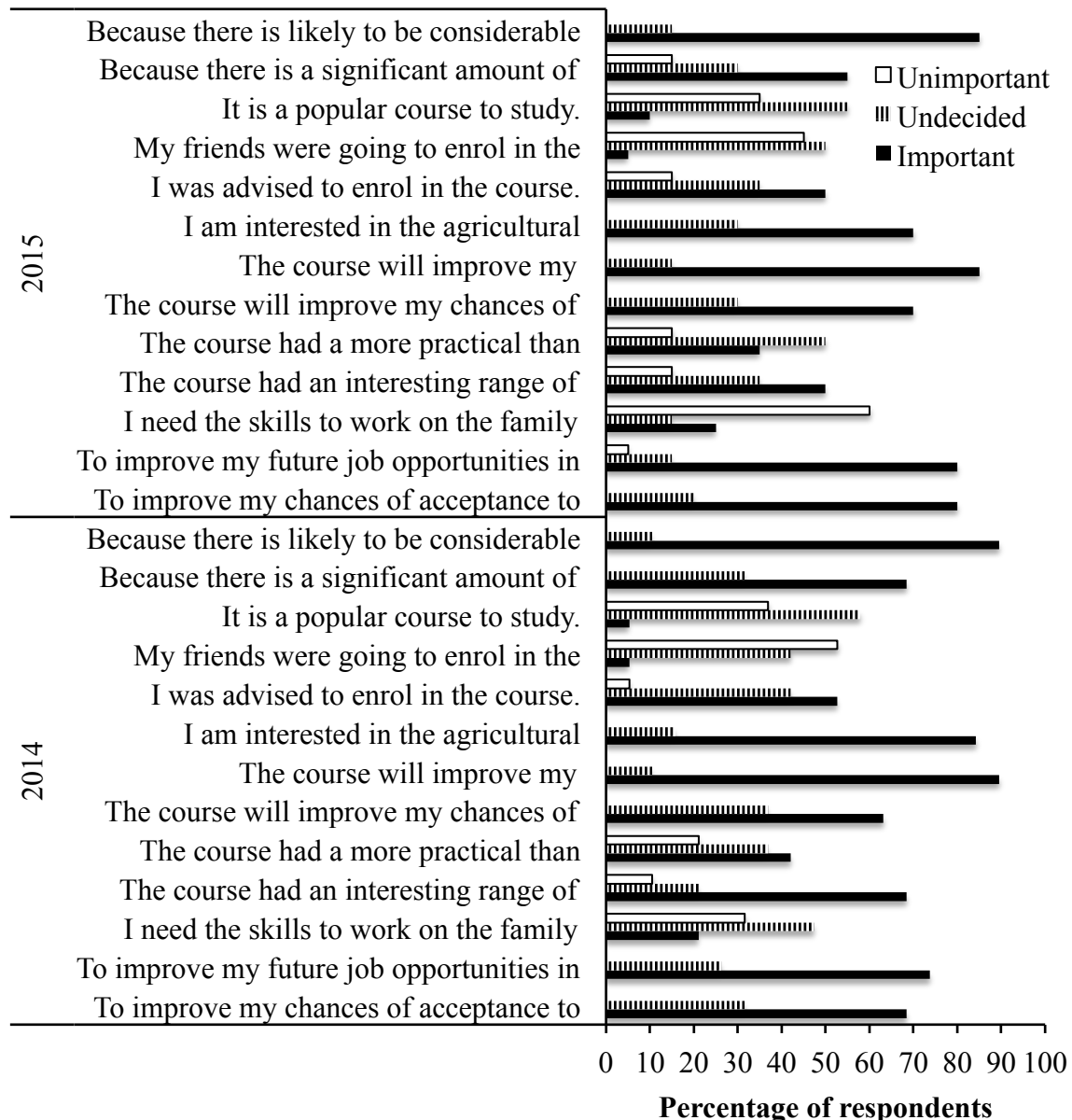
**Figure 11. Time taken to consider enrolling in the Centre of Excellence for Agricultural Science and Business Programme (301)**

Figure 11 indicates that respondents took up to six months to make a decision to enrol in the Centre of Excellence for Agricultural Science and Business (301) Programme. There were no significant differences in how long it took students to make a choice to become involved in the 2015 and 2016 programmes.



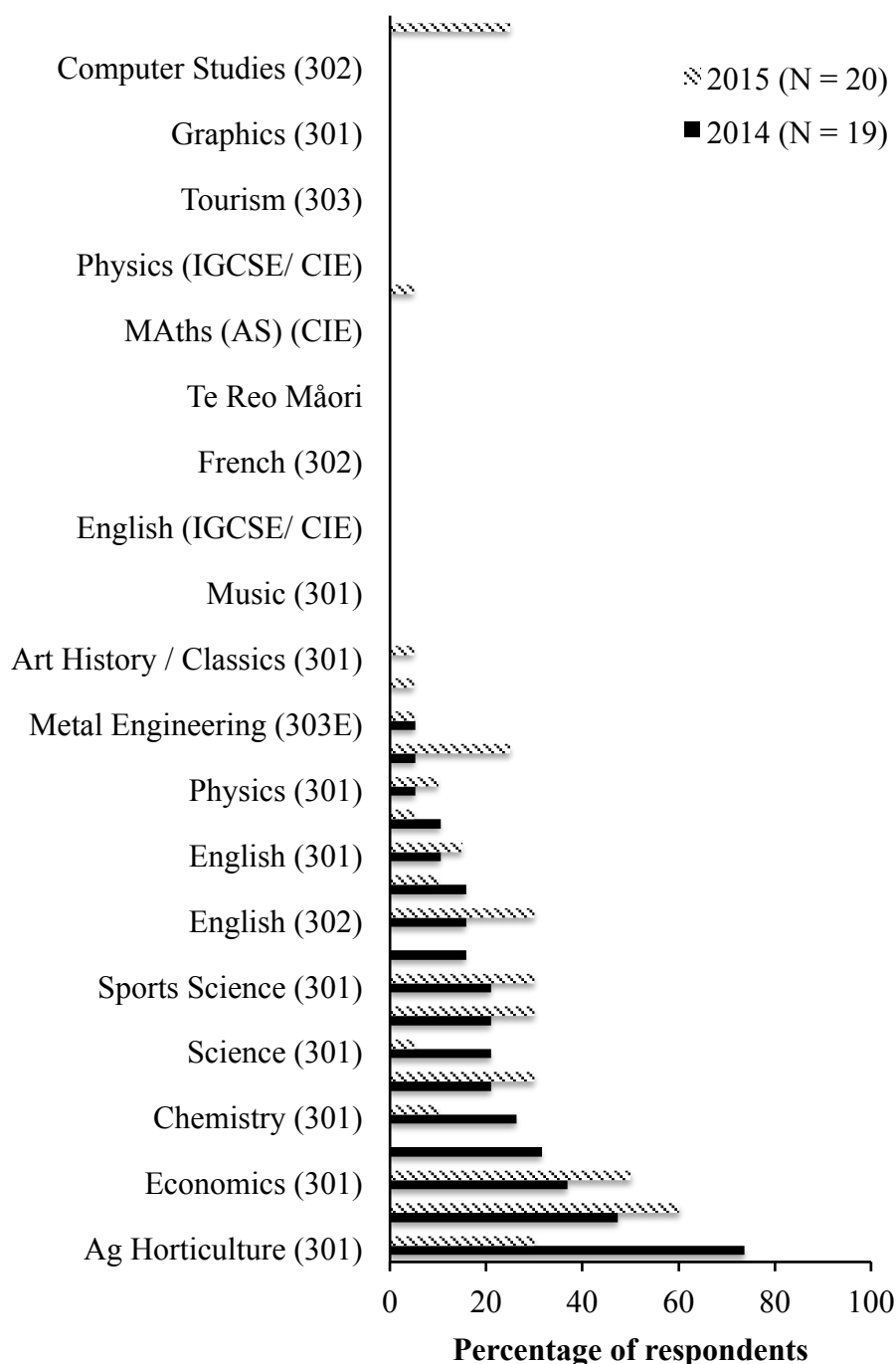
**Figure 12. Sources of Information used in the decision making process for enrolling in the Centre of Excellence for Agricultural Science and Business Programme (301).**

Figure 12 indicates that the most important sources of information for decision-making in 2014 were the respondent's classroom teacher followed by careers advisors and industry information. In 2015 the careers advisor had become an even more important source of information. This means that it is important for the classroom teacher and careers advisor to have knowledge of what is offered in the programme and for industry representatives to have knowledge of what is offered. The industry representatives may also need to provide the course designers with details of what skills and knowledge are helpful when moving to tertiary study in their field of expertise. This may be included in the programme.



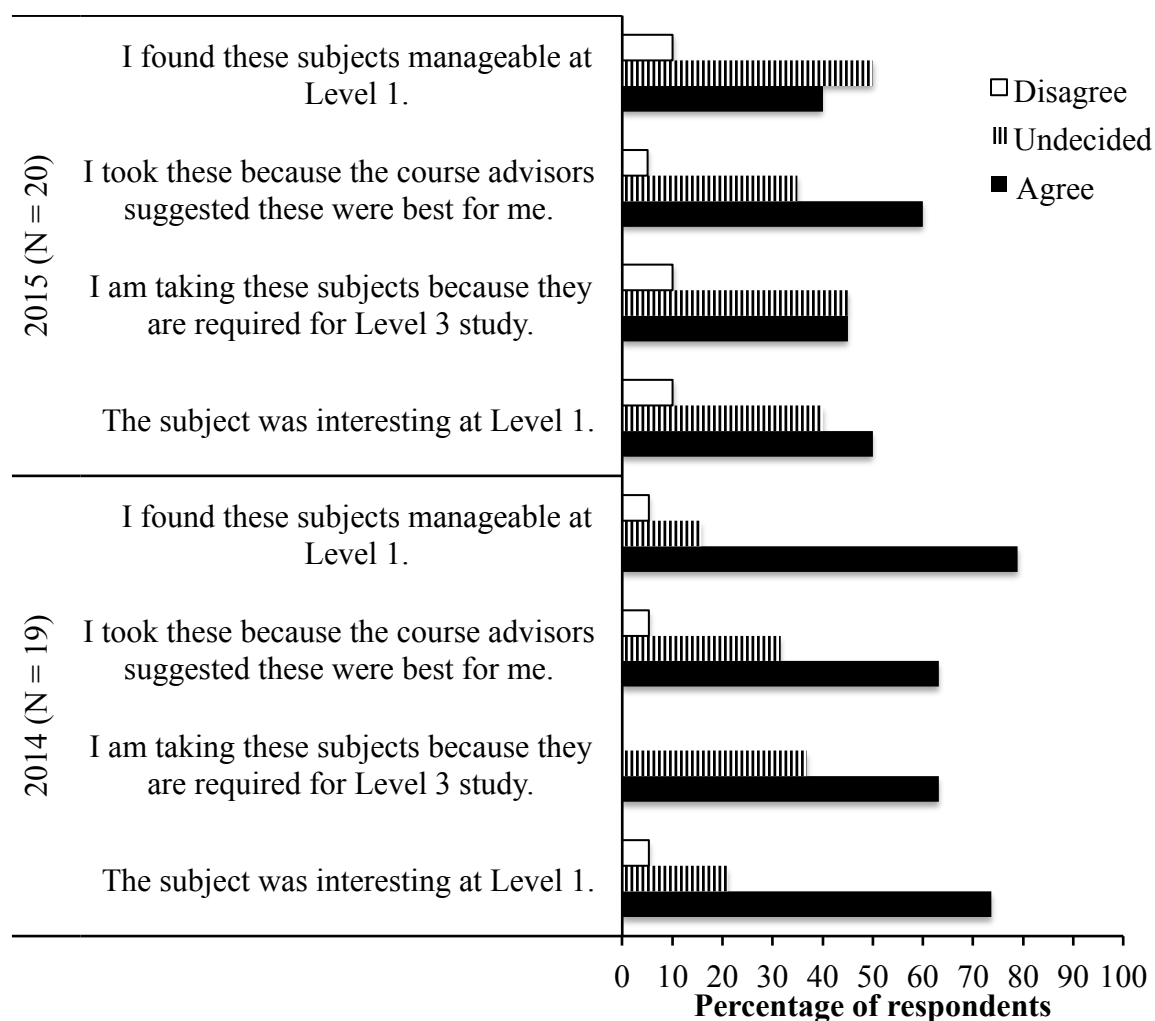
**Figure 13. Importance of factors in respondent decisions to enrol in the Centre of Excellence for Agricultural Science and Business (301) Programme in 2015 & 2016.**

Figure 13 shows the factors respondents considered most important when making a decision to enrol in the Centre of Excellence for Agricultural Science and Business (301) programme. The most important factors were the chance of gaining employment in the agricultural sector, having an interest in the agricultural sector and being able to improve their understanding of the agricultural industry in general. These factors remained similar over the two years surveyed.



**Figure 14. Courses chosen to study in 2015 & 2016 to complement the Centre of Excellence for Agricultural Science and Business Programme**

Figure 14 shows the subjects respondents' had chosen to complement their Centre of Excellence for Agricultural Science and Business Programme (301). In 2015, the most frequently chosen were Ag Horticulture, Mathematics with Statistics, Mathematics with Calculus and Economics. In 2016, there were larger numbers taking Mathematics with Statistics and a range of Social Sciences to complement their (301) programme. Interestingly compared with Level 2 there are less students choosing Sports Science as a complementary subject. The lesser numbers shown in the sciences may be due to the fact that students complete several sciences as part of the (301) Agricultural Science and Business course compulsory subjects.



**Figure 15. Reasons for choosing these subjects to complement the standards that students will complete as part of the Centre of Excellence for Agricultural Science and Business (301) programme.**

Figure 15 indicates that the main reasons for choosing a subject to complement the Agricultural Science and Business (301) were that course advisors suggested that these were best for the student, and the subjects were interesting and manageable at Level 1 & 2.

**Table 2. Knowledge, skills and understanding developed by students as a result of participating in the Centre of Excellence for Agricultural Science and Business Programme (201) in 2015.**

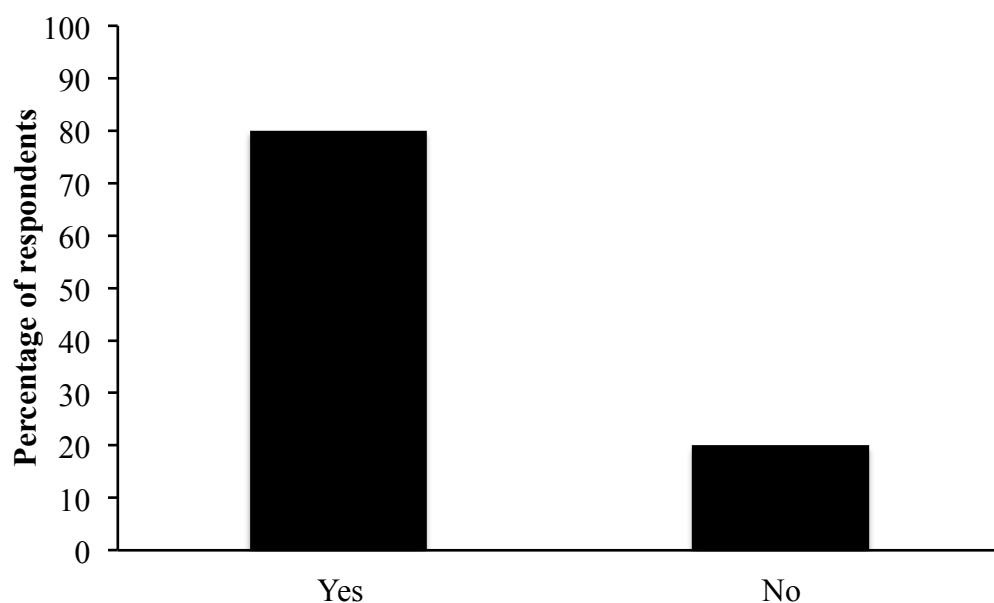
Student Responses
A good understanding of the agricultural industry.
Adding value to products.
Business skills.
How businesses are run and the environmental factors influence how dairy farms have restriction on run of.
I developed a better understanding of all aspects of farming.
Learning about new technology and ideas. Learning about Nitrogen Leaching.
Learning about the effects that farming has on the environment in New Zealand.
Learning all parts of agriculture.
None.

Details in Table 2 indicate that students participating in the Centre of Excellence for Agricultural Science and Business Programme (201) had gained a better understanding of the role of the agricultural industry in the New Zealand economy. They had learnt some of the skills required to be involved in the operational aspects of the agricultural industry and had been introduced to the importance of environmental sustainability in the agricultural industry.

**Table 3. The knowledge, skills, and understanding students would expect to develop as a result of completing the Centre of Excellence for Agricultural Science and Business Programme (301)**

Question 8: Student Responses
A larger understanding of what goes on in the business part as it is a big industry in New Zealand.
A more developed understanding of the agricultural industry and what is on offer in terms of agribusiness.
Small Business skills process in business.
Business side of farming.
Further advanced skills in the sector.
Having knowledge and understanding of how to run a farm and aspects of agriculture.
How businesses run and gaining knowledge for future study of what are good industries to go into.
How to develop an idea and how to follow through with it.
How to operate and run a company involved in the agricultural sector.
I will expect to broaden my knowledge of what businesses entails.
More in depth learning about the business side of the agricultural sector and the benefits of it.
Not sure.
Running a small business.
Running a small business, looking in depth into the agriculture industry and business side of things.
To have an in-depth meeting with a member of an agribusiness company and understand what they say.
To put together an idea and be able to produce this and sell this into the real world.
Understanding of agribusiness.

Table 3 identifies a number of the aspects that students wanted to develop knowledge, skills and understanding of as a result of participating in the Centre of Excellence for Agricultural Science and Business Programme (301) in 2016. These included developing a better understanding of New Zealand's leading industry and the possible job opportunities available to students. Students indicated an interest in soil science and wanted to develop further knowledge of the practical aspects of the agricultural industry. Some also hoped that they would be exposed to new and improved methods of operating in the agricultural industry. These factors are likely to be important when designing different aspects of the courses being provided at different levels.



**Figure 16. The likelihood of students from the Centre of Excellence for Agricultural Science and Business Programme (301) choosing a career in agricultural related industries**

Eighty percent of survey respondents said that they were considering a career in an agricultural related industry. The possibilities for respondents are detailed according to different segments of the agricultural industry in a series of tables below. The most interest from students seems to be in agricultural communications, agronomy and soils, and animal sciences. Knowing where students would like to move in the future is likely to help in developing a focus for courses. It might be also that this information could be provided to leaders in each of the different segments to indicate student interest. Industry leaders in different segments might be able to promote careers where there is student interest and promote interest in careers where they presently have shortfalls or are likely to have shortfalls in the future.



**Table 4. Agricultural Communications**

	2015	2016
Market News Reporter	1	0
Farm News Reporter	1	0
Public Relations Representative	2	0
Advertising Specialist	2	1
Marketing Communications Manager	3	4
Regional Sales Manager	3	2

**Table 5. Number of students considering a potential career path in Agricultural Economics**

	2015	2016
Grain Broker	0	2
Farm and Land Appraiser	2	2
Agricultural policy analyst	1	1
Resource economist	1	4
Agricultural insurance agent	3	2
Food distribution	1	1

**Table 6. Table 6: Number of students considering a potential career path as Agricultural Educator**

	2015	2016
University Educator	0	0
Farm Management	6	2
Secondary Teacher	0	2
Soil Conservationist	1	0
Farm Adviser	5	4
Online agricultural educator	0	0

**Table 7. Number of students considering a potential career path in Agricultural Engineering**

	2015	2016
Structural Engineer	1	1
Food Engineer	2	3
Irrigation Engineer	1	0
Bioprocessing Engineer	2	0
Machine Design Engineer	2	4

**Table 8. Number of students considering a potential career path in Agronomy and Soils**

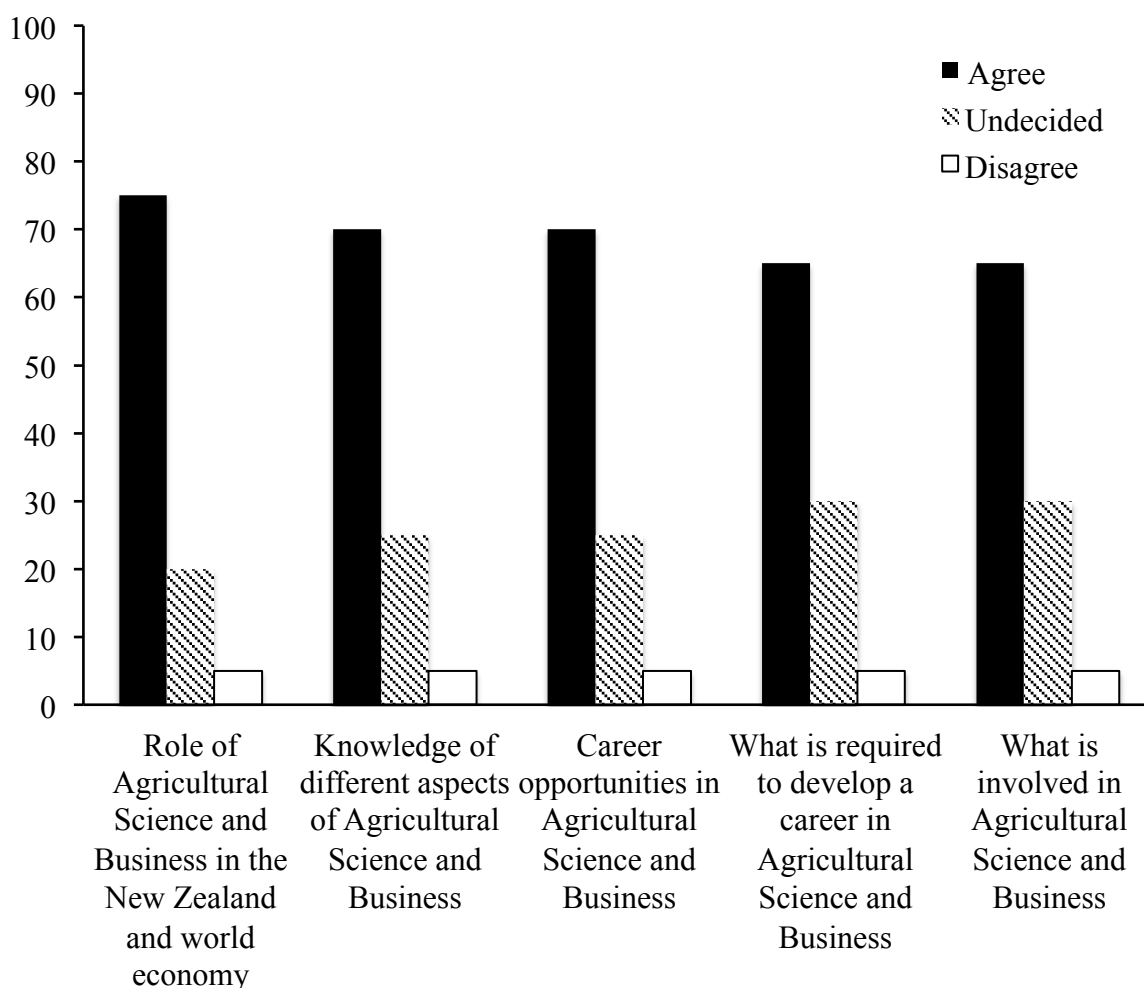
	2015	2016
Crop Specialist	3	3
Plant Geneticist	2	0
Soil Scientist	3	0
Soil Conservationist	1	0
Fertiliser Sales	3	1
Soil Surveyor	1	1
Plant Breeder	1	1
Farm Supply Representative	3	2
Crop Specialist	3	3
Plant Geneticist	2	0

**Table 9. Number of students considering a potential career path in Animal Sciences**

	2015	2016
Livestock Production Manager	4	4
Farm Manager	9	5
Feed and Sales/Management	6	0
Livestock Procurement	1	1
Stable Management	1	2
Farm Worker	5	3
Animal Scientist	2	2
Veterinarian	1	2
Animal Geneticist	4	1

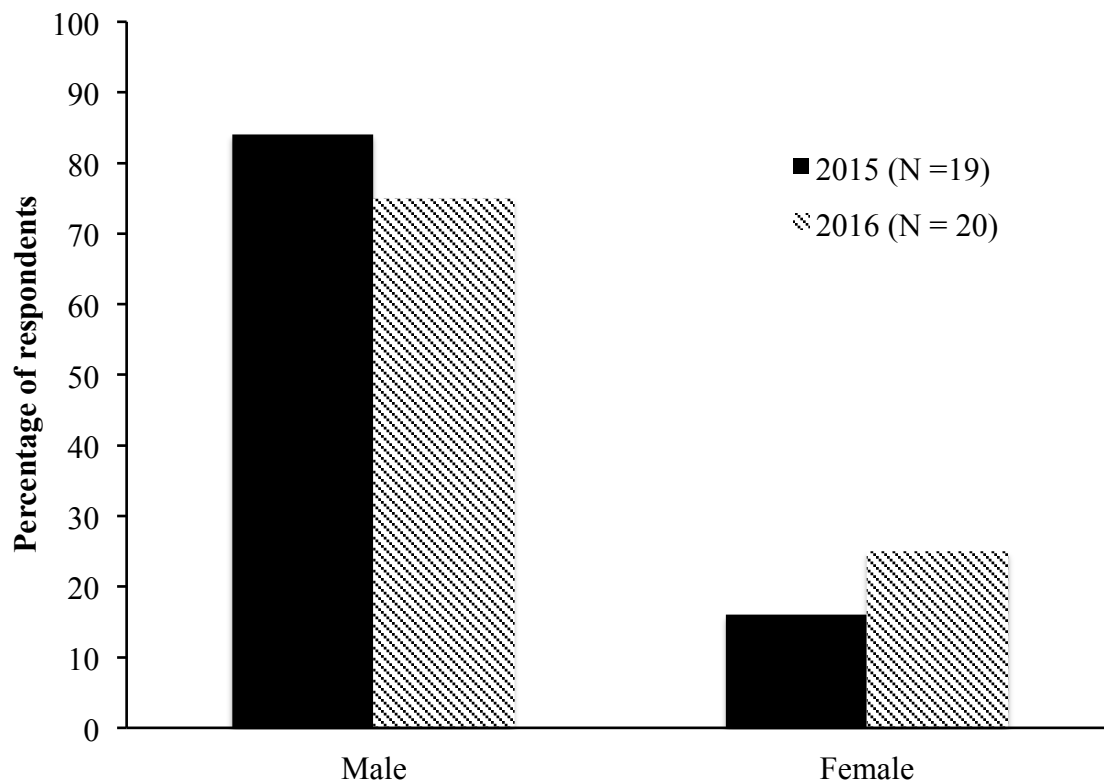
**Table 10. Number of students considering a potential career path in Food Sciences**

	2015	2016
Food product research and development	2	4
Food Manufacturing	1	4
Quality Assurance	0	2
Food Chemist	1	2
Food Microbiologist	1	1
Food Researcher	1	2
Food processing	2	1



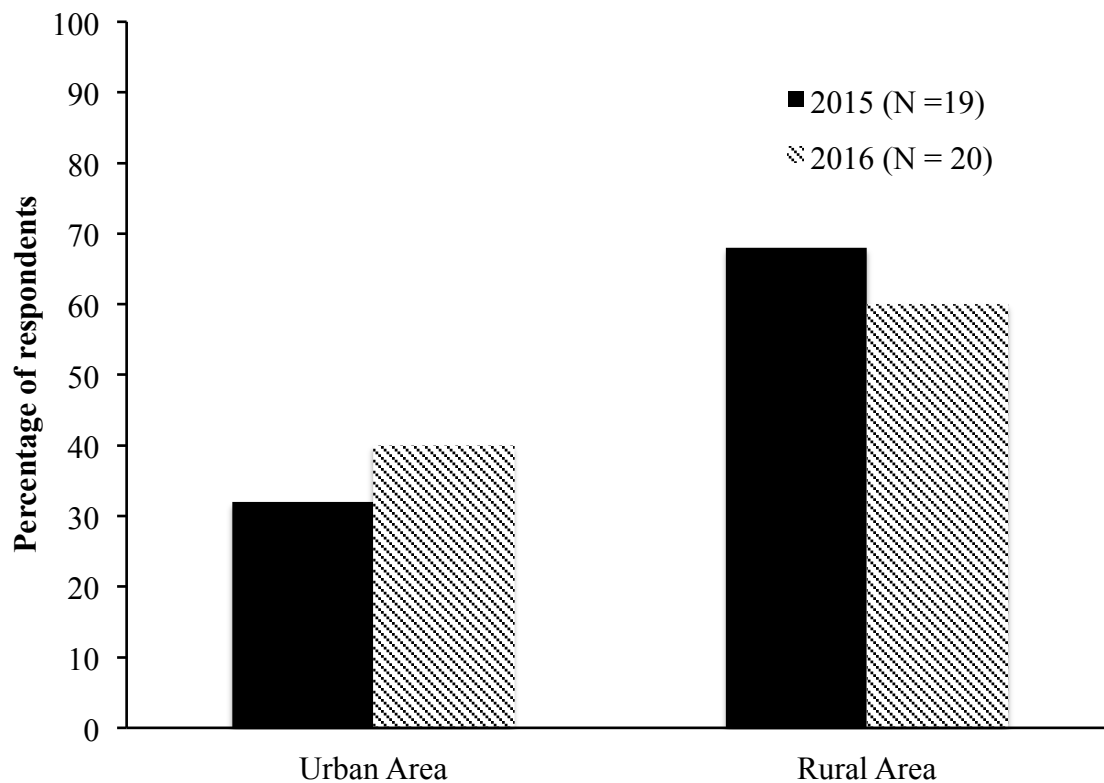
**Figure 17. Student knowledge skills and understanding as a result of having completed the Centre of Excellence for Agricultural Science and Business Programme (201) in 2015.**

Figure 17 indicates that students have developed a knowledge of the role of agricultural science and business in the New Zealand and world economy, an awareness of career opportunities in agricultural science and business sector and a knowledge of what is required to develop a career in agricultural science and business.



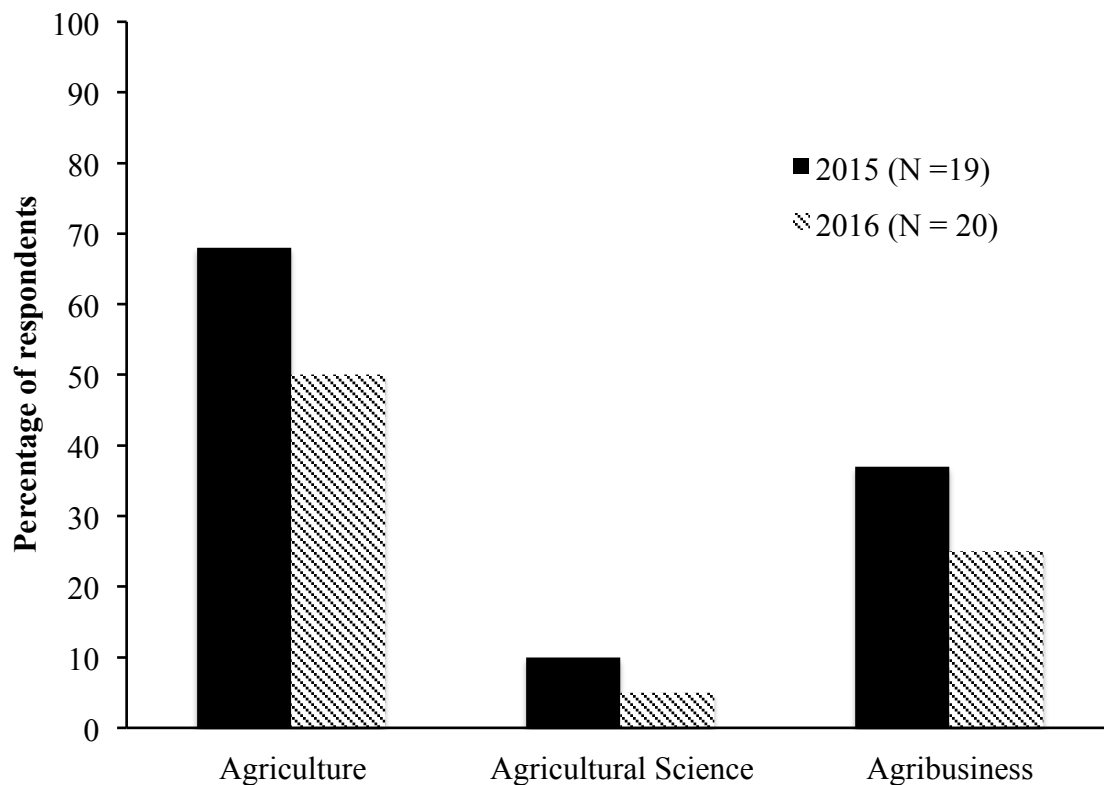
**Figure 18. Respondent Demographic Information**

Almost 85% of respondents to the survey in 2015 were male and 75% were male in 2016. This suggests that the male students are at this stage more interested in a career in agricultural science and business. It will be important to provide information to female students as to career possibilities in the agricultural industry.



**Figure 19. Respondent Residential Location**

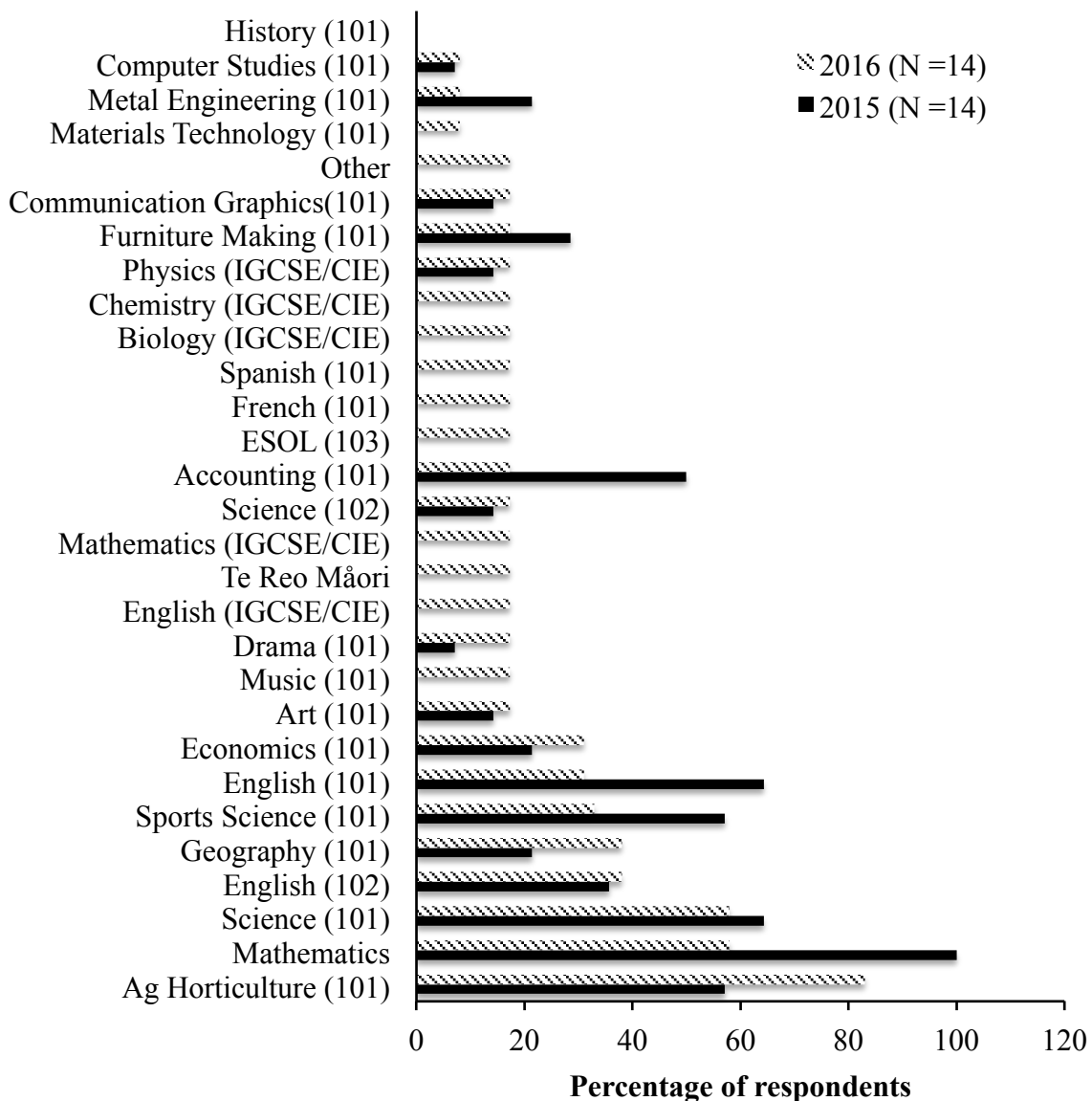
Figure 19 indicates that there are over 30% in 2015 and 40% in 2016 of respondents to the questionnaire living in urban areas. This might suggest that there is a considerable potential to attract students living in urban areas to be involved in agricultural science and business. Whilst at this stage their families may not have land holdings, they may be interested in being involved in agricultural occupations that support the agricultural industry.



**Figure 20. Agricultural Occupations: Caregiver Status**

Figure 20 indicates that over 60% of respondent caregivers in both years are involved in agricultural occupations and 25% in some form of agribusiness. One of the challenges might be to get urban students who come from families who don't have caregivers involved in agriculture to be involved in the Centre of Excellence for Agricultural Science and Business and to pursue careers in a segment of the agricultural industry.

## CENTRE OF EXCELLENCE FOR AGRICULTURAL SCIENCE AND BUSINESS (202) PROGRAMME SURVEY RESULTS IN 2015 (n = 14) and 2016 (n = 14)



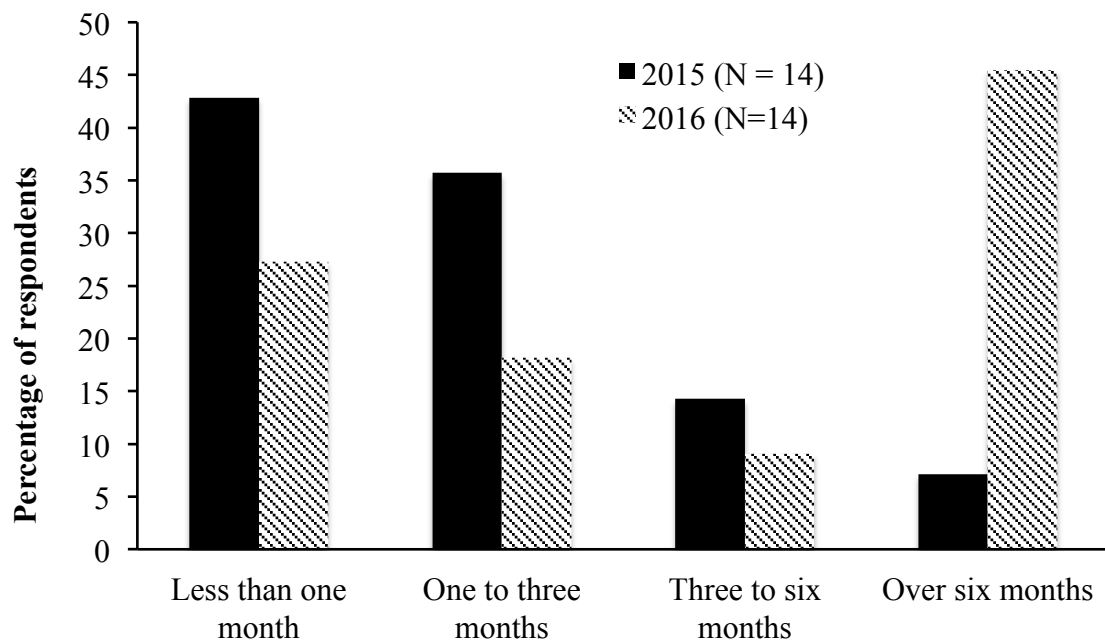
**Figure 21. Subjects students completed standards/IGCSE/CIE courses in 2014 and 2015**

It should be noted that the figures in Figure 21 above relate to the subjects that students took in the 2014 and 2015 years. The surveys, however, were distributed in 2015 and 2016.

Figure 21 indicates that in 2016 the same numbers of students were enrolled in the (202) Agribusiness programme as had been the case in 2015. Those enrolling in the Agribusiness (202) programme in 2015 had completed courses in Mathematics, Science, English, Sports Science and Accounting in 2014. Greater numbers of those enrolling in the Agribusiness (202) programme in 2016 had taken Ag

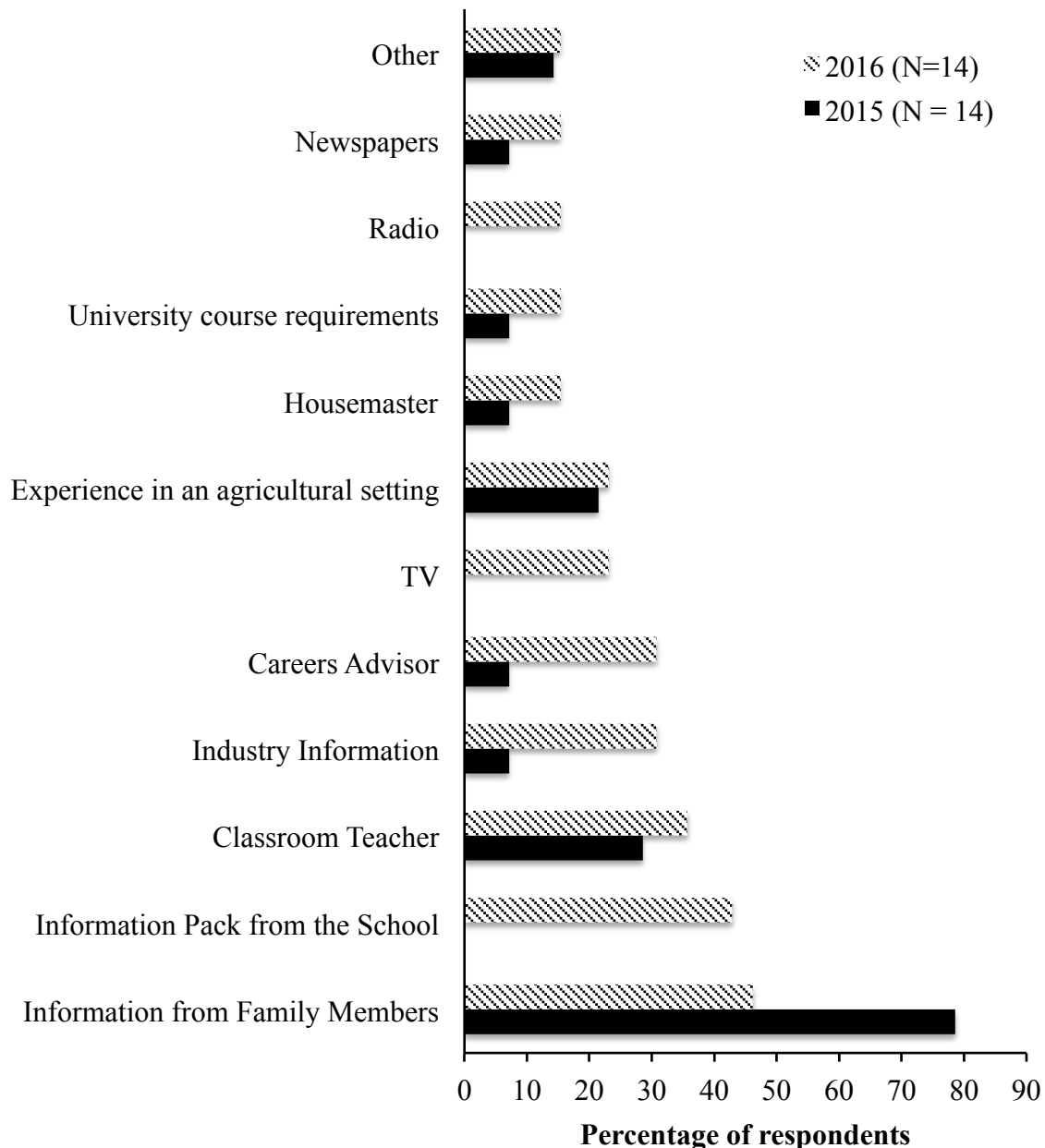


Horticulture, English, a range of Social Sciences and Communication Graphics in 2015. Interestingly quite a number had not taken Mathematics and Science.



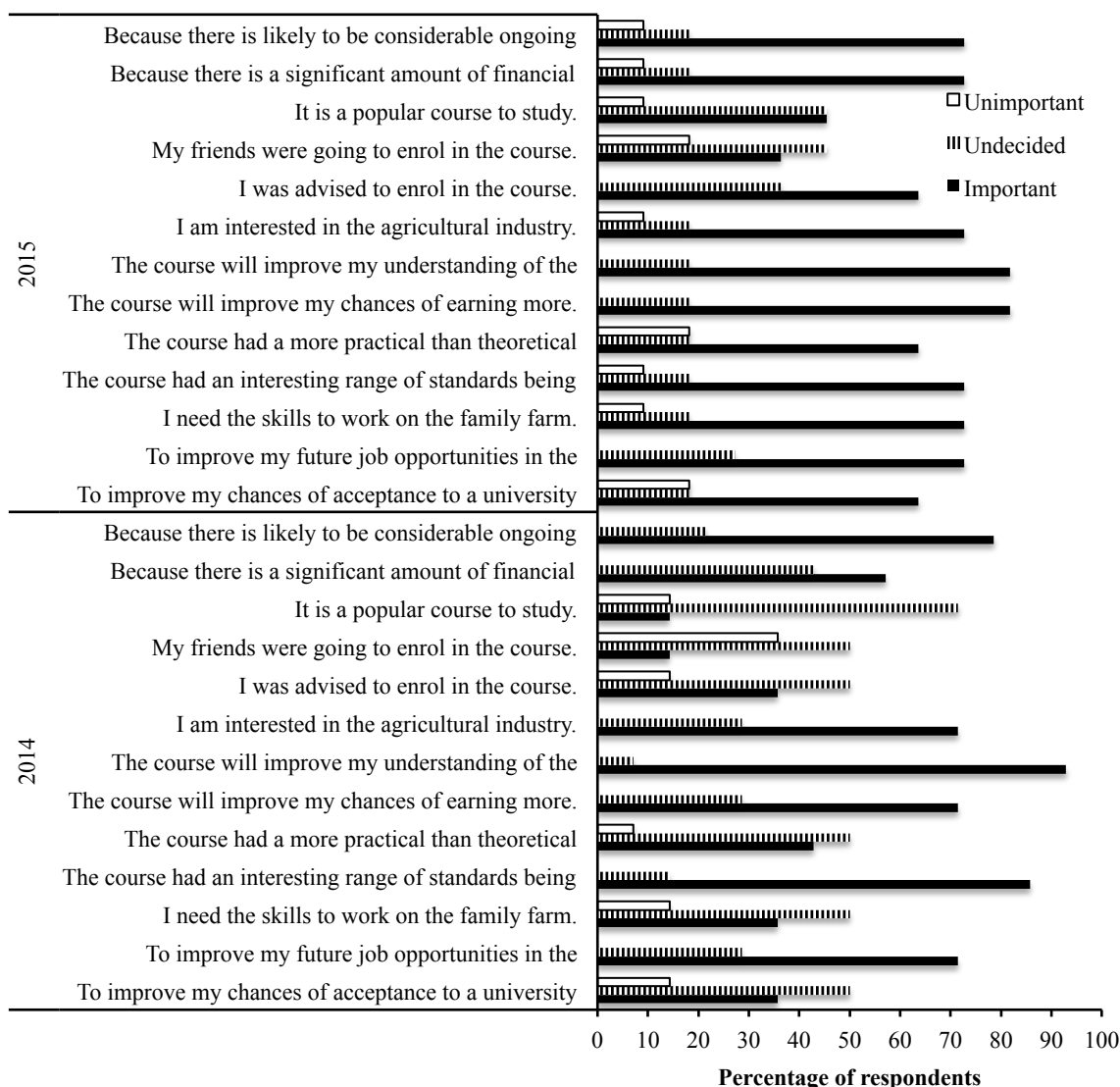
**Figure 22. Time taken to consider enrolling in the Agribusiness Programme (202)**

Figure 22 indicates that in 2014 & 2015 respondents took up to six months to make a decision to enrol in the Agribusiness Programme (202). In 2014, the majority of students took 1–3 months to decide and only a few took 6 months; in 2015 almost half of students said that it took them six months to decide to enrol in the programme.



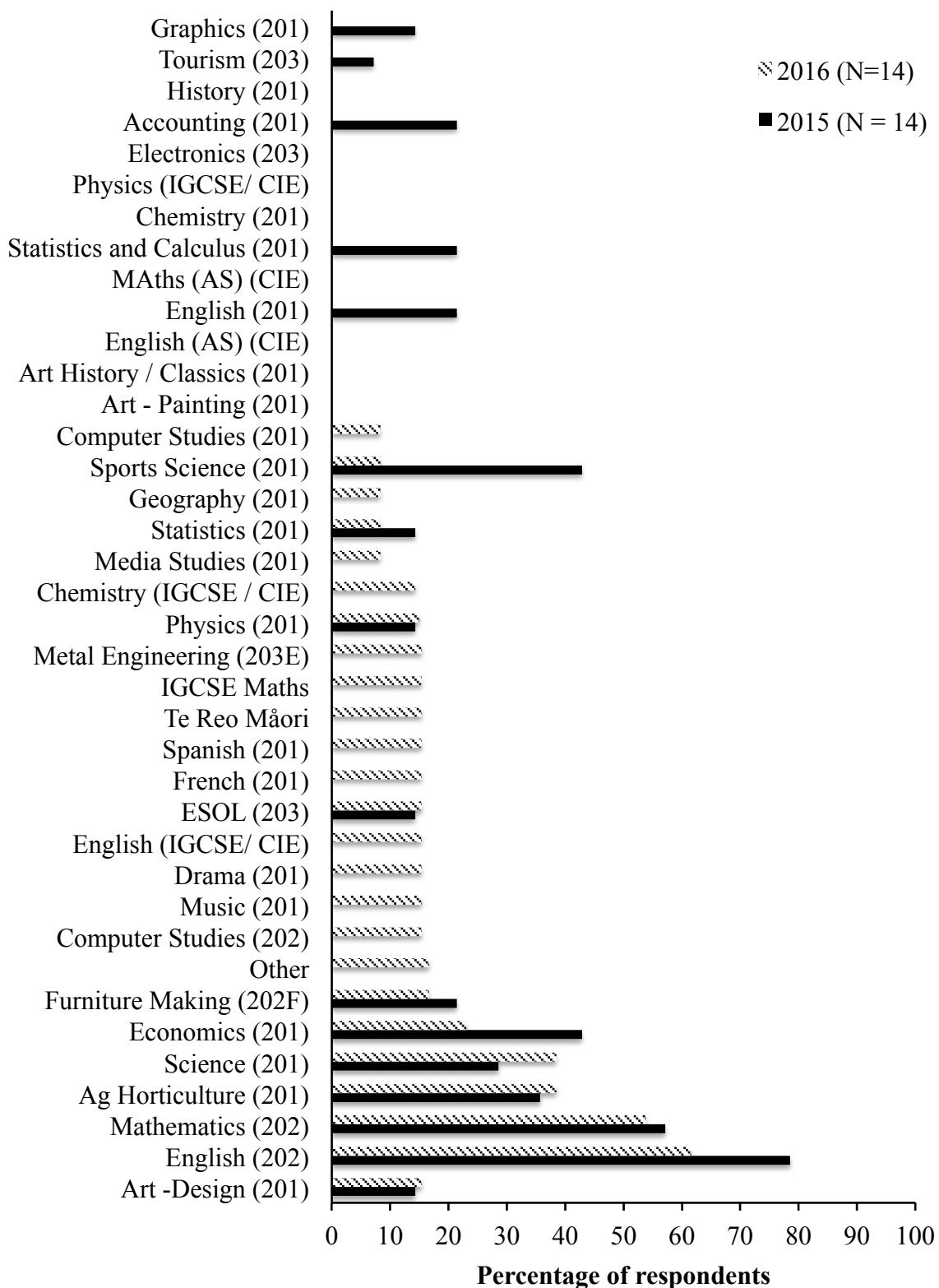
**Figure 23. Sources of information used in the decision making process for enrolling in the Agribusiness Programme (202).**

Figure 23 indicates that in 2014 the most important source of information for decision-making was the respondent's family members followed by the information pack from the school. Interestingly in 2015, there is less reliance on classroom teachers, industry information, careers advisors and housemasters. This might indicate that in the first instance those individuals might have been given more information about the possibilities in agribusiness and learnt more from their peers. It might also be important for the students to be provided with a range of information from outside sources to help with the decision-making process. The results suggest they like to sort through a range of information from outside sources relating to employment opportunities.



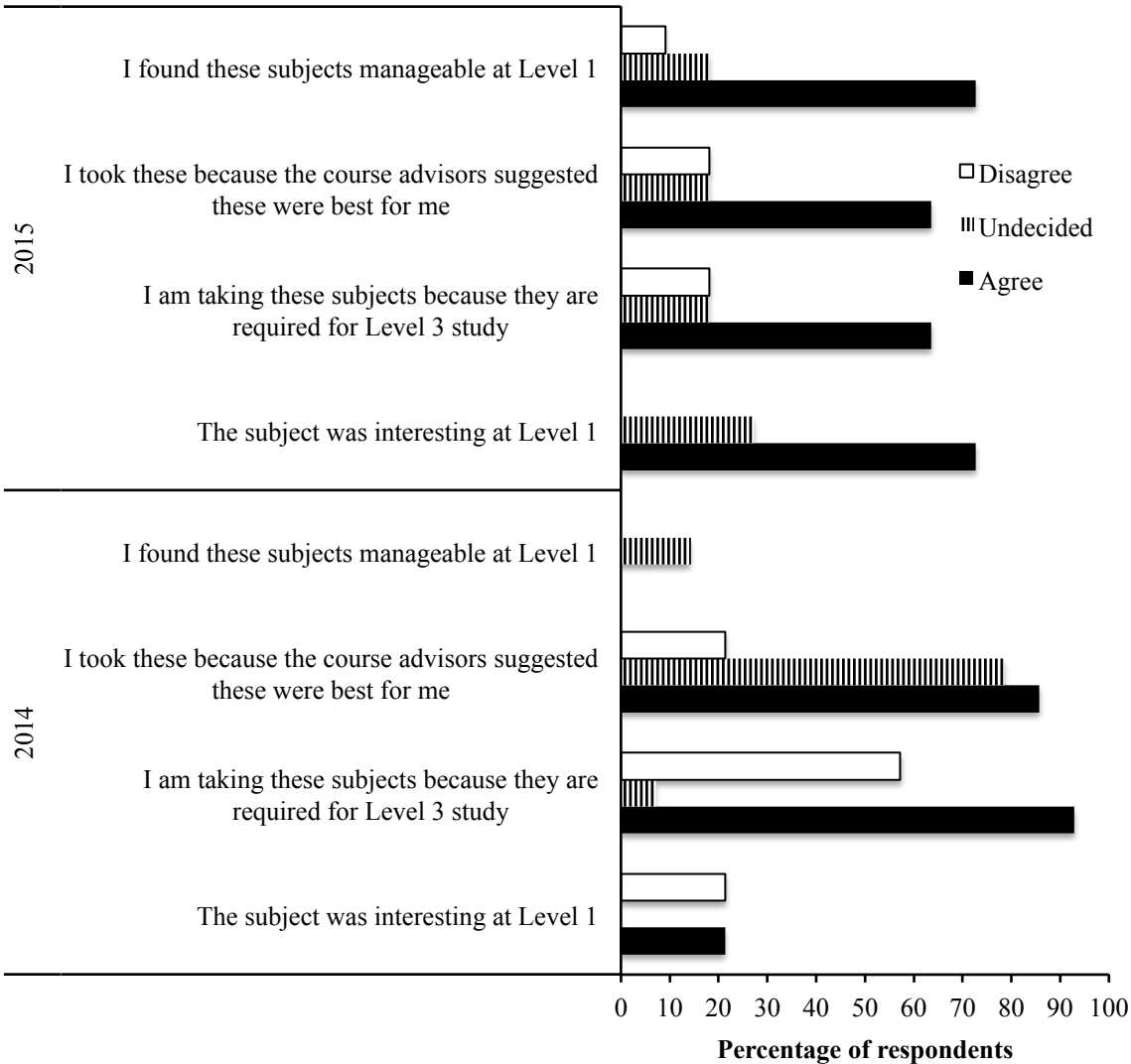
**Figure 24. The importance of factors in respondent decisions to enrol in the Agribusiness Programme (202).**

Figure 24 indicates that the most important reasons chosen to enrol in the Agribusiness Programme (202) were because the respondents were generally interested in the agricultural industry, they wished to develop a better understanding of the agricultural industry and they considered there was likely to be an ongoing demand for qualified people to work in the agricultural sector.



**Figure 25. Courses chosen to study in 2015 & 2016 to complement the Agri-Business Programme (202)**

Figure 25 shows that most respondents were taking courses in Mathematics and English and a range of subjects including Ag Horticulture, Science, Economics and Sports Science to complement their Agribusiness (202) programme.



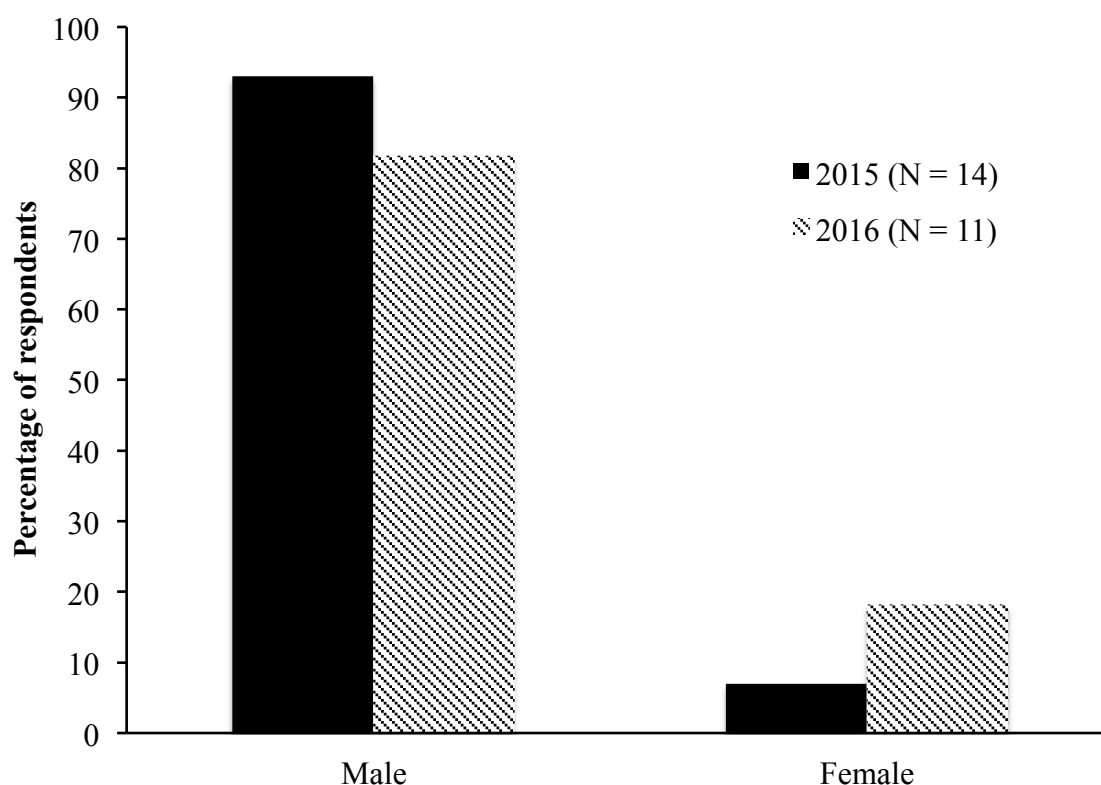
**Figure 26. Reasons for choosing these subjects to complement the standards that students will complete as part of the Agricultural Science and Business (202) programme.**

Figure 26 shows that most respondents chose the complementary subjects to support their Agribusiness (202) Programme because they had found them interesting and manageable at Level 1 and they were required for Level 3 study.

**Table 11. Knowledge, skills and understanding students would like to develop as a result of having completed the Agri-Business Programme (202)**

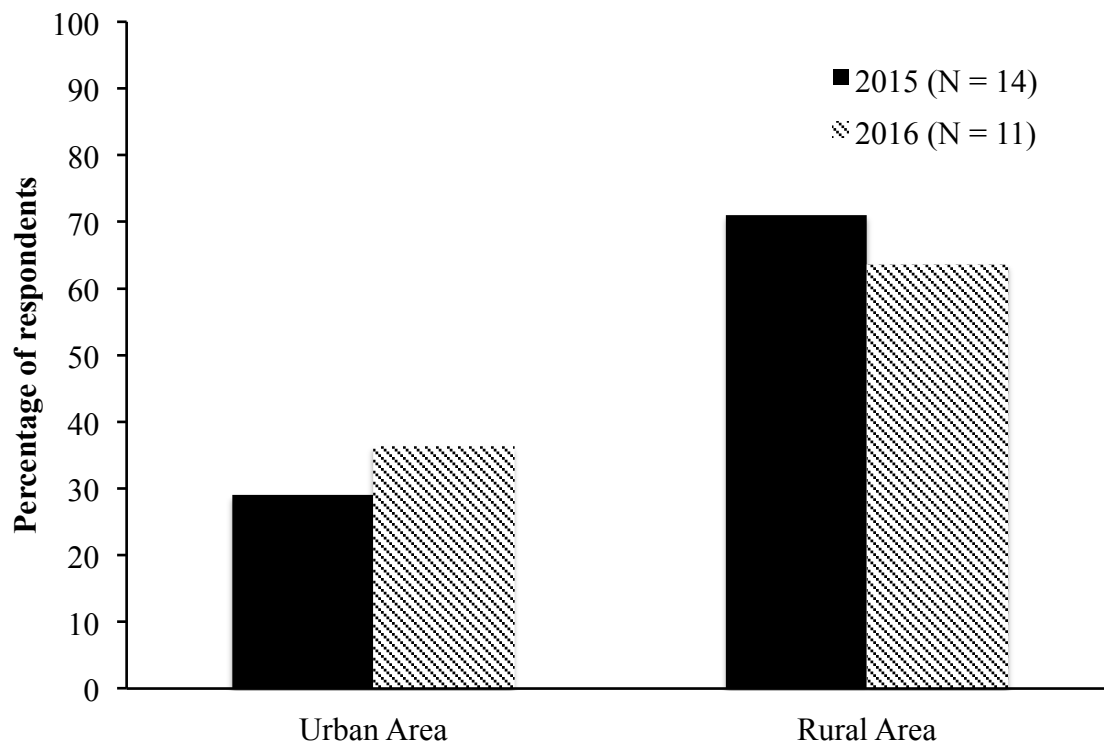
Student Responses
How the economic growth in the agricultural sector has grown over time.
Soil management.
Soil management.
More about the soil and livestock in New Zealand.
Environmental factors about farming in New Zealand, information about farming, developing knowledge in the sector.
How the economic growth in the agricultural sector has grown over time.
Soil management.
Soil management.

Details in Table 11 indicate that students would like to develop knowledge of soil management and the impact of environmental factors on farming.



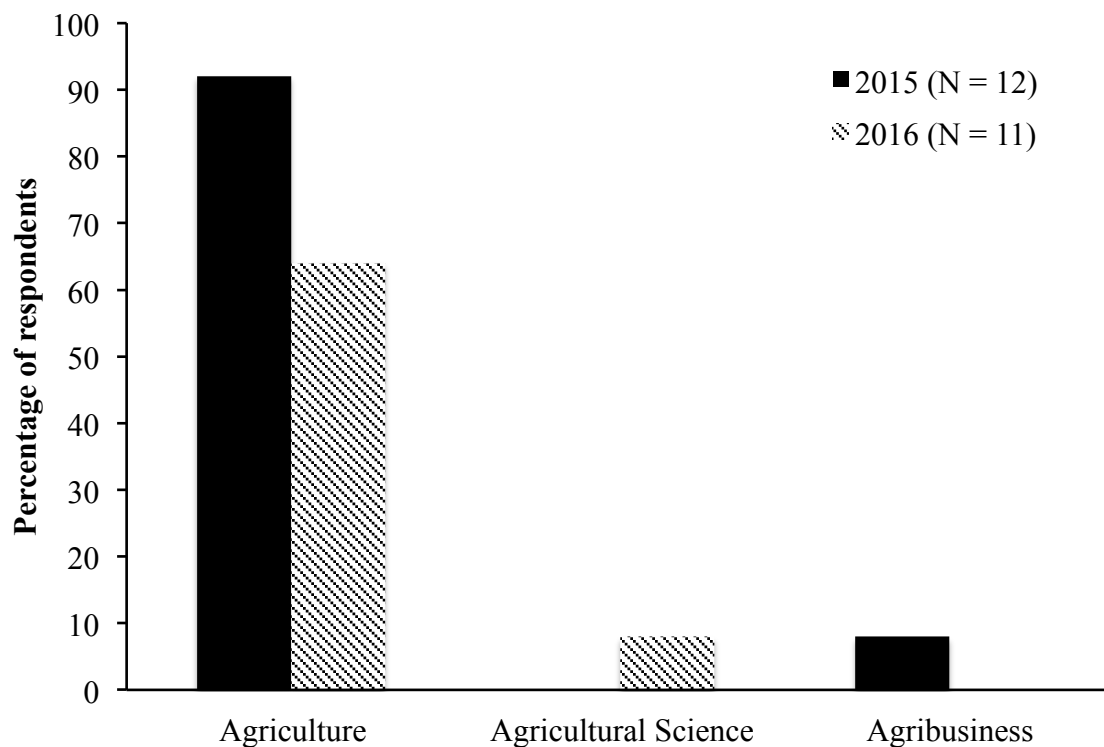
**Figure 27. Respondent Demographic Information**

Figure 27 indicates that almost 93% of respondents to the survey in 2015 were male and 82% were male in 2016. The figure indicates that female student interest in the programme was growing. This might suggest that the programme could be promoted to both male and female students providing information on career options that could come from an agribusiness programme.



**Figure 28. Respondent Residential Location**

Figure 28 indicates that over 60% of respondents in both years live in rural areas. There are however nearly 30% coming from urban areas. This suggests that there is considerable interest in agribusiness in urban communities and a possible area that could be further promoted with day students.

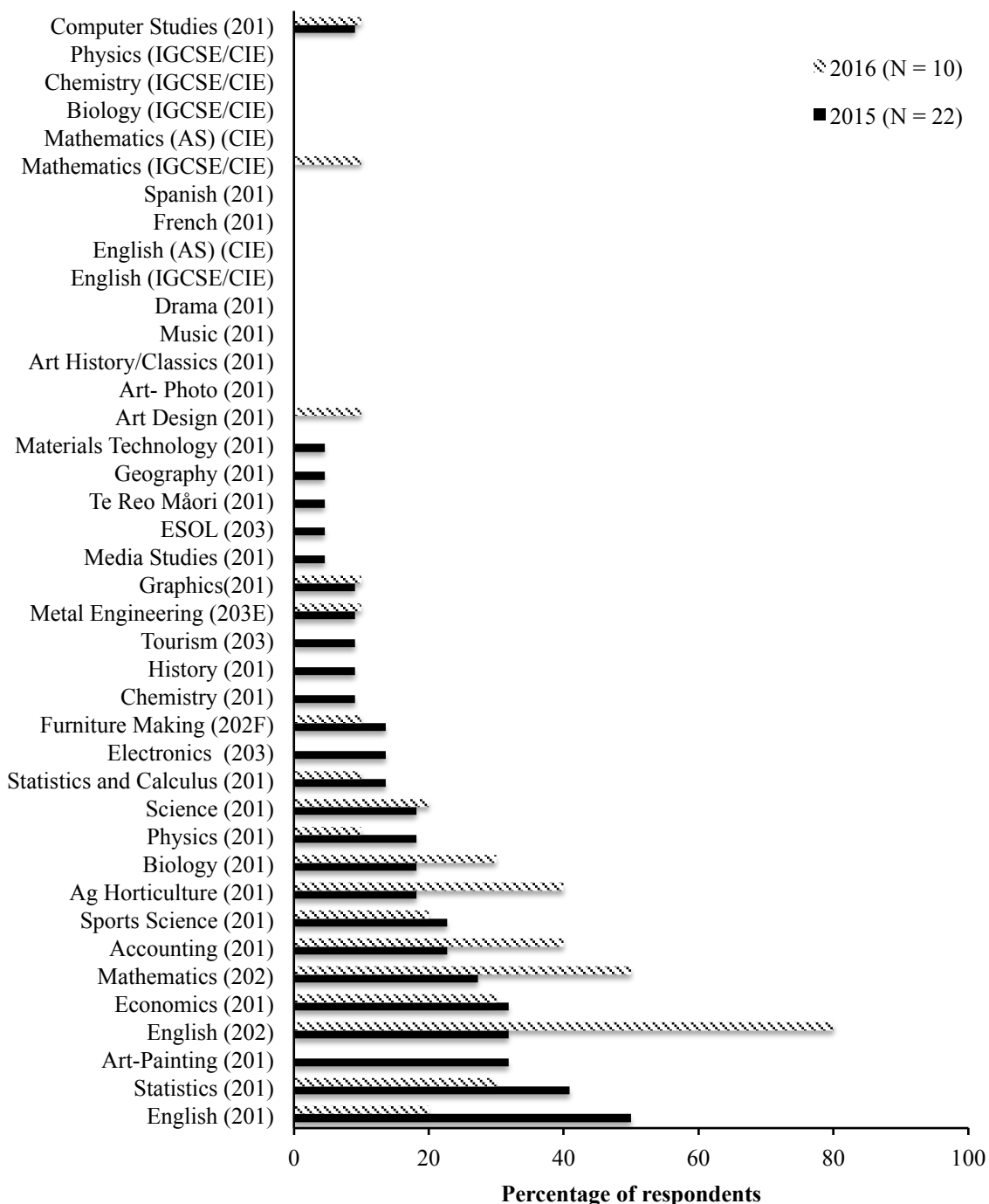


**Figure 29. Agricultural Occupations: Caregiver Status**

Figure 29 shows the predominance of respondent caregivers in both years being involved in agricultural occupations. This has probably influenced the respondent's choice to be involved in the programme. The lack of caregivers being involved in agricultural science might provide an opportunity for the School and industry organisations to promote agribusiness and agricultural science organisations.



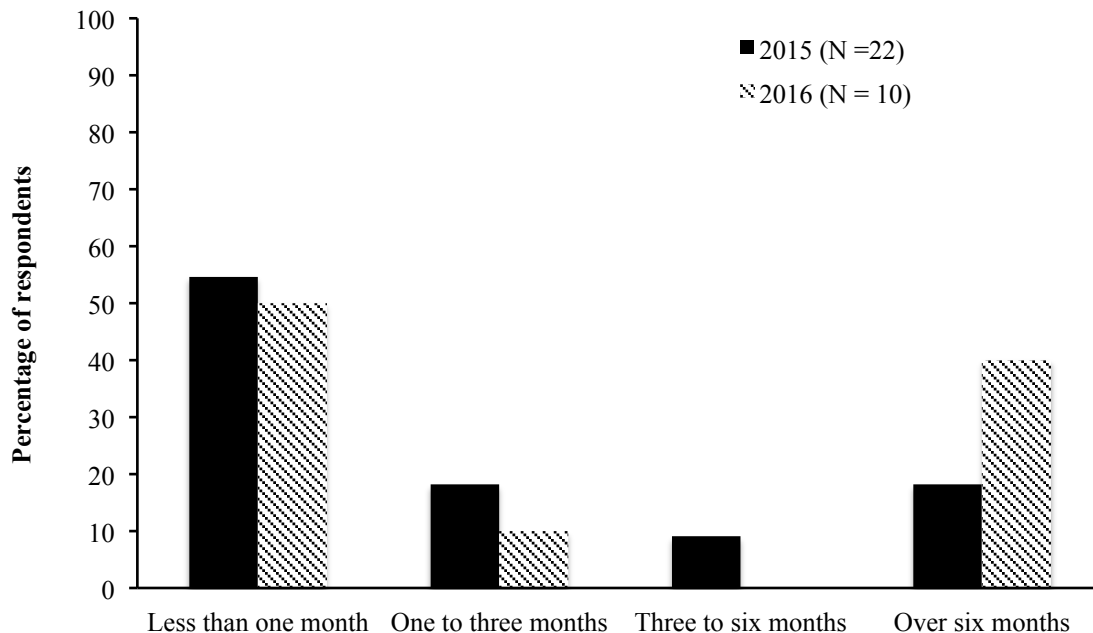
## CENTRE OF EXCELLENCE FOR AGRICULTURAL SCIENCE AND BUSINESS (302) PROGRAMME SURVEY RESULTS IN 2015 (N = 22) AND 2016 (N = 10)



**Figure 30. Subjects standards/IGCSE/CIE courses completed 2014 and 2015**

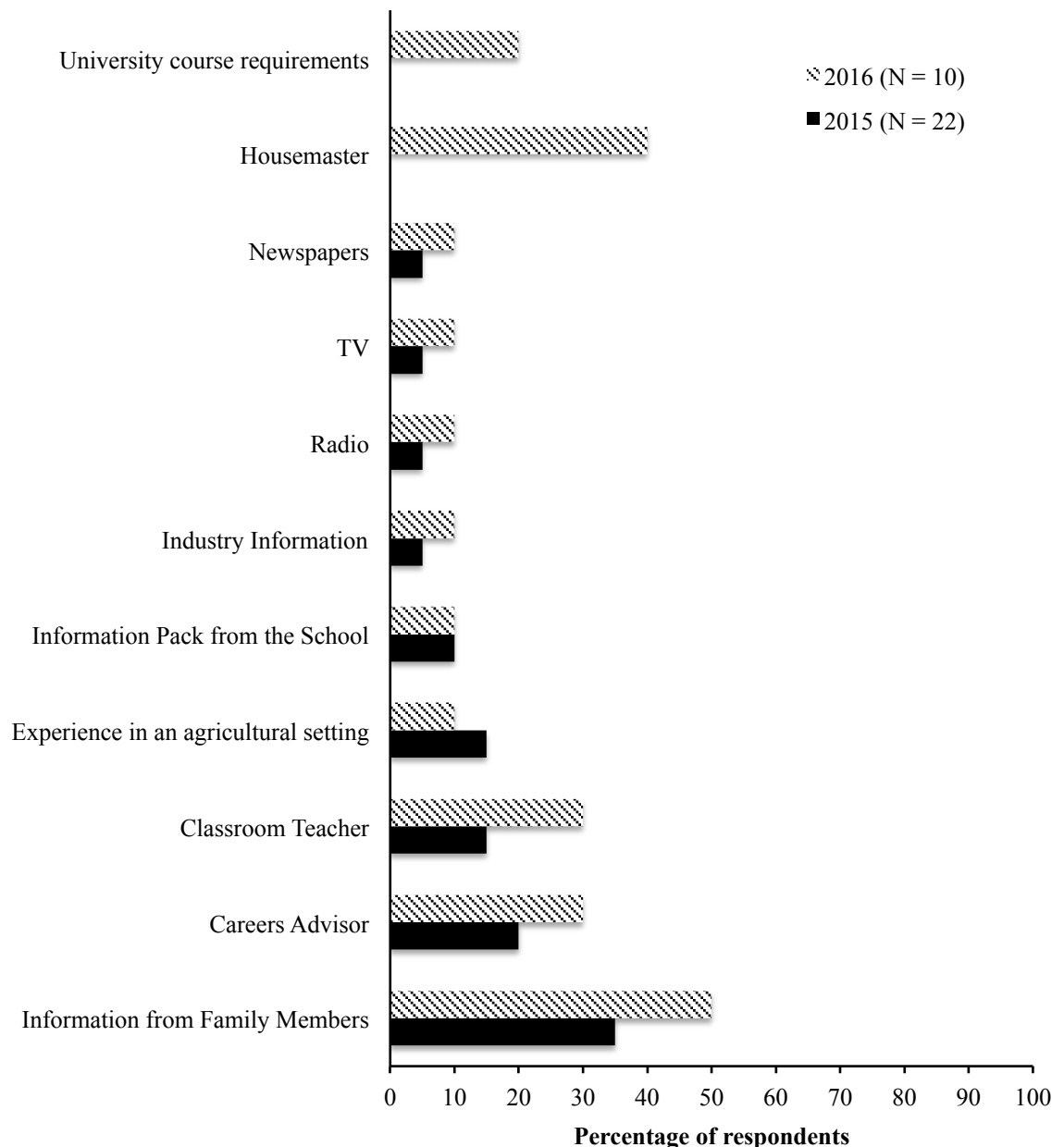
It should be noted that the figures in Figure 30 above relate to the subjects that students took in the 2014 and 2015 years. The surveys, however, were distributed in 2015 and 2016.

Most students enrolling in Agribusiness (302) had completed English, Mathematics and Mathematics with Statistics in 2015. Smaller numbers of students completed a range of subjects including Physics, Science, Accounting, Economics and Sports Science.



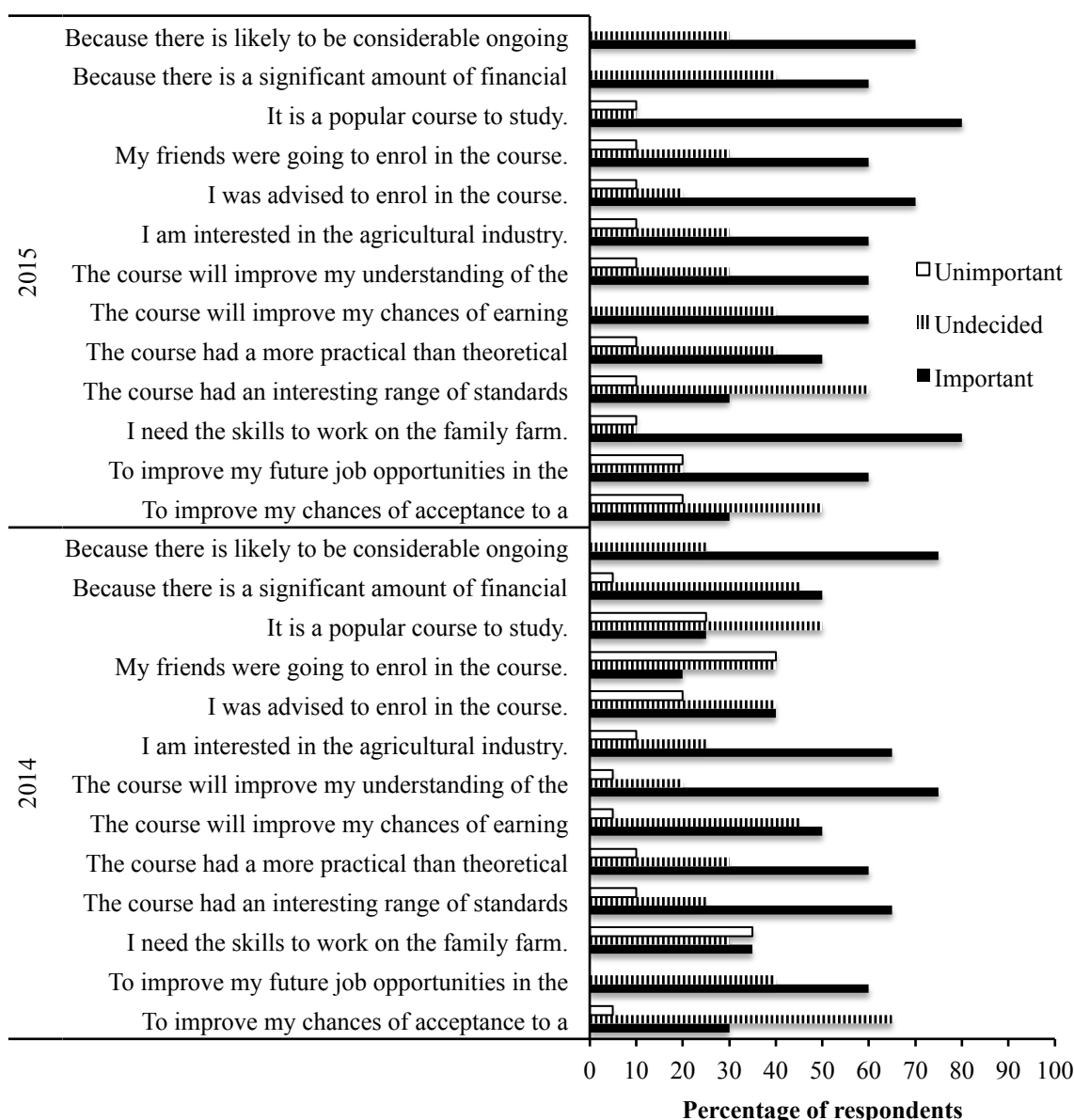
**Figure 31. Length of time taken to consider enrolling in the Agribusiness Programme (302)**

Most students considering enrolling in the Agribusiness (302) Programme took less than one month to make the decision in both 2014 and 2015. However, in 2015 a number of students took over six months to make the decision to enrol.



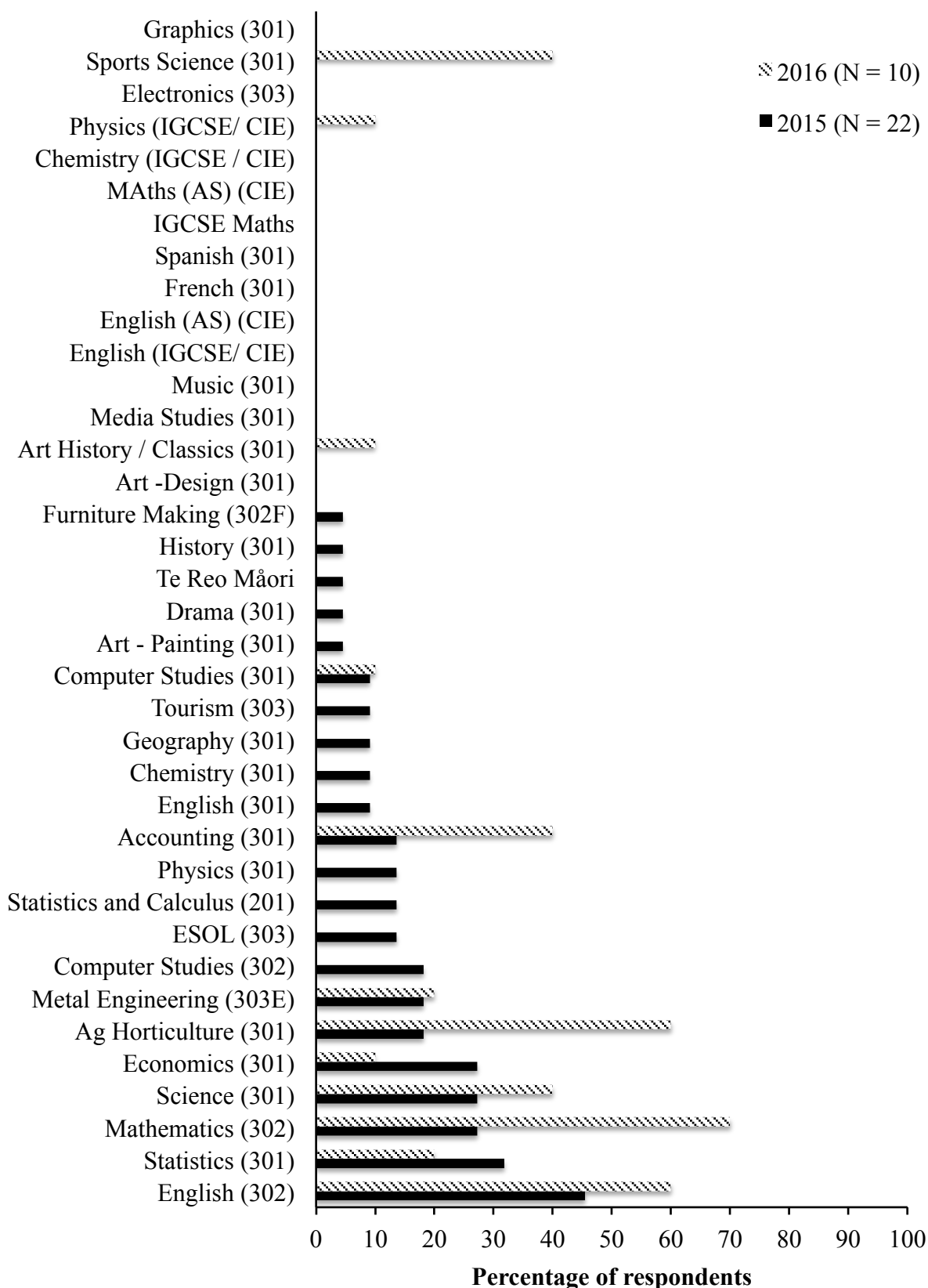
**Figure 32. Sources of information used when deciding to complete the Agri-Business Programme (302)**

Students used a range of sources or information to assist in their decision to enrol in the Agri-Business (302) Programme. This was somewhat different to other groups who had relied mainly on family members, classroom teachers, careers advisors and industry information. This may mean that this group had not received the same information as others. It might be best to have a standardised pack of information available to all students attempting to make the choice.



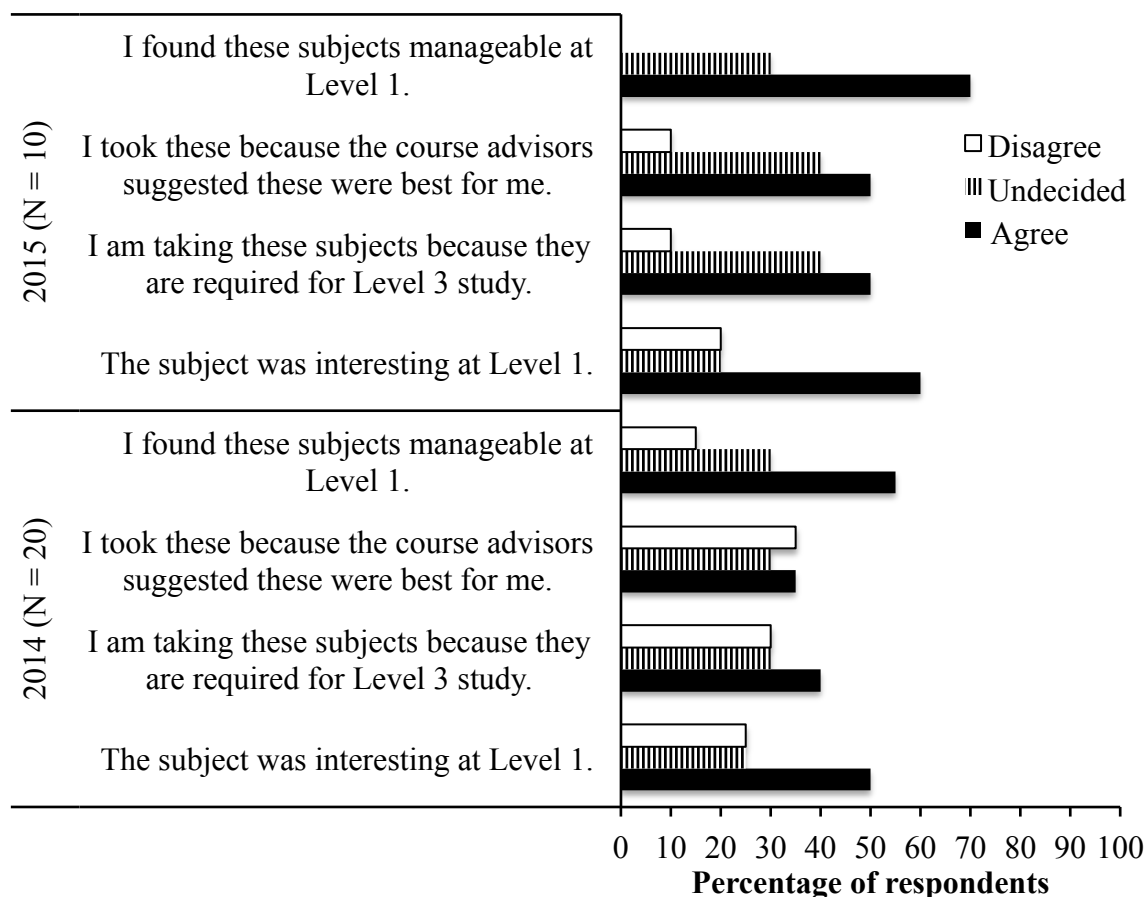
**Figure 33. Factors important when making the decision to enrol in the Agri-Business Programme (302).**

The main factors identified as being important to students when enrolling in the Agri-Business (302) course were that they wanted to develop a better knowledge of the agricultural industry and there were likely to be employment opportunities for suitably qualified individuals in the agricultural sector.



**Figure 34. Subjects studied in 2015 and 2016 to complement the Agribusiness (302) programme.**

Most respondents had taken Mathematics and English and a range of other subjects including Ag Horticulture, Science, Economics, Accounting, Engineering and Computer Studies to complement their Agri-Business (302) programme.



**Figure 35. Reasons for choosing subjects to complement the standards that you will complete as part of the Agribusiness (302) Programme**

As with other programmes students chose these subjects because they found them interesting and manageable at Level 1. This has implications when providing careers advice. The subjects suggested to complement the Agribusiness (302) Programme need to be ones that students are interested in, find manageable and provide value to their programme.

**Table 12. Main Knowledge, Ideas and Skills developed as a result of completing the Agribusiness (202) course in 2015**

Main knowledge, ideas and skills developed
How a major business operates.
How to do spreadsheets.
I did the sustainability standard on the same thing for the third time.
Marketing.
Not sure if I developed any new skills.
Understanding of the agricultural industry.

Students seem to enjoy the practical aspects of the program and were interested in developing their skills in Land Use.

**Table 13. The knowledge skills and understanding students would like to develop as a result of completing the Agribusiness Course (302) in 2016**

Knowledge and skills and understanding students would like to develop
An understanding of the agribusiness industry.
How to form a business and sell a product more about the agricultural-economy create innovative design in an agri-business product.
Just more about agriculture in general.
Knowing where markets are how to manage small business.
Learn how to set up a small business.
Skills that would be useful in the future that would be easy for me to pick up again in the future.
The skills in the commerce business side of the agri-business.
To learn how to make cheese.

Students indicated that they would like to widen their agricultural knowledge and would like to develop their knowledge of the technology aspects of agribusiness.

**Table 14. The Likelihood of students from Agribusiness (302) choosing a career in Agricultural Related Industries**

	%
Yes	60
No	40

This table shows more students might choose an Agriculture related career. This is somewhat different to the students in the (301) programme. It is worth programme developers considering why this might be.

### Areas of Interest for those Choosing a Career in Agriculture

**Table 15. Agricultural Communications**

	2015	2016
Market News Reporter	1	0
Farm News Reporter	0	1
Public Relations Representative	1	1
Advertising Specialist	1	0
Marketing Communications Manager	2	1
Regional Sales Manager	3	1
Account Manager	1	1

**Table 16. Agricultural Economics**

	2015	2016
Grain Broker	1	0
Farm and Land Appraiser	1	1
Agricultural policy analyst	2	0
Resource economist	3	0
Agricultural insurance agent	0	1
Food distribution	1	0



**Table 17. Agricultural Educator**

	2015	2016
University Educator	2	0
Farm Management	3	1
Secondary Teacher	2	0
Soil Conservationist	2	0
Farm Adviser	4	2
Online agricultural educator	0	0

**Table 18. Agricultural Engineering**

	2015	2016
Structural Engineer	3	1
Food Engineer	0	1
Irrigation Engineer	2	0
Bioprocessing Engineer	2	0
Machine Design Engineer	3	2

**Table 19. Agronomy and Soils**

	2015	2016
Crop Specialist	3	1
Plant Geneticist	1	0
Soil Scientist	1	0
Soil Conservationist	1	0
Fertiliser Sales	0	0
Soil Surveyor	1	0
Plant Breeder	0	0
Farm Supply Representative	0	1

**Table 20. Animal Sciences**

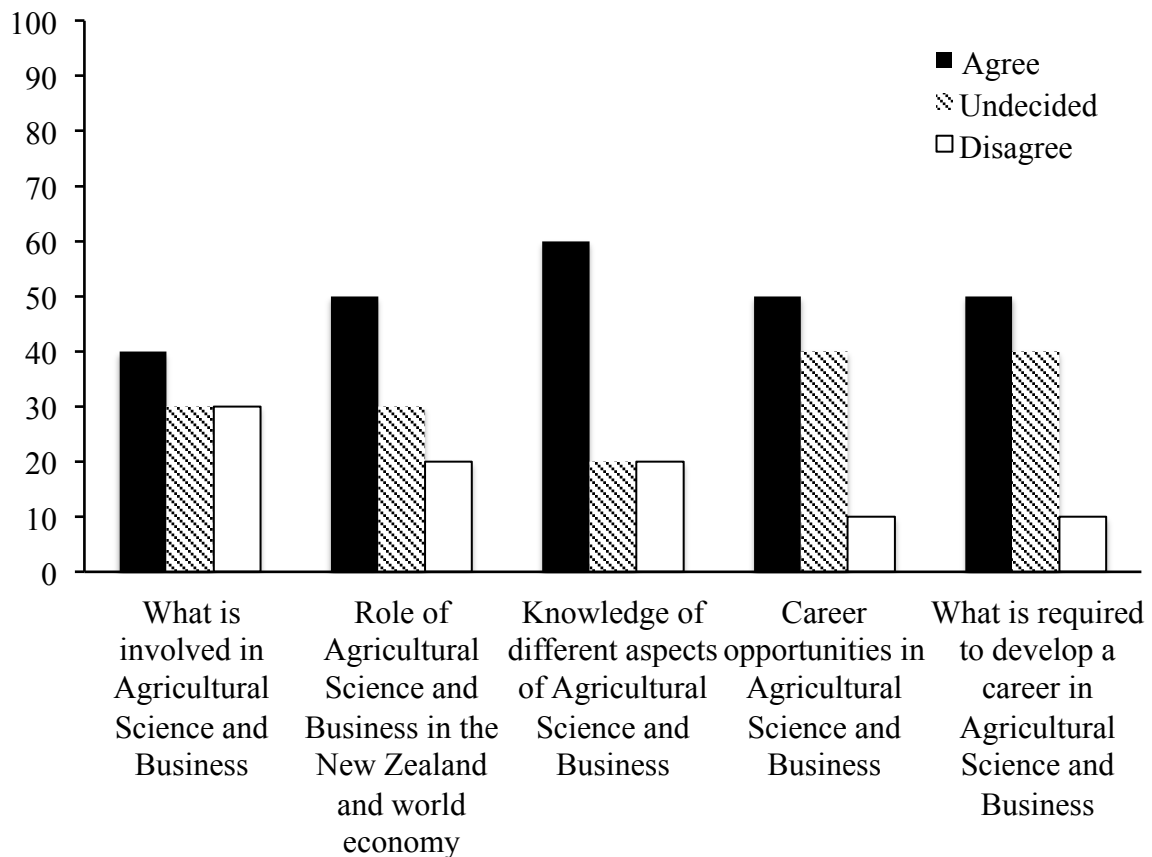
	2015	2016
Livestock Production Manager	2	2
Farm Manager	2	3
Feed and Sales/Management	1	1
Livestock Procurement	2	1
Stable Management	2	0
Farm Worker	3	4
Animal Scientist	1	0
Veterinarian	2	0
Animal Geneticist	0	0

**Table 21. Food Sciences**

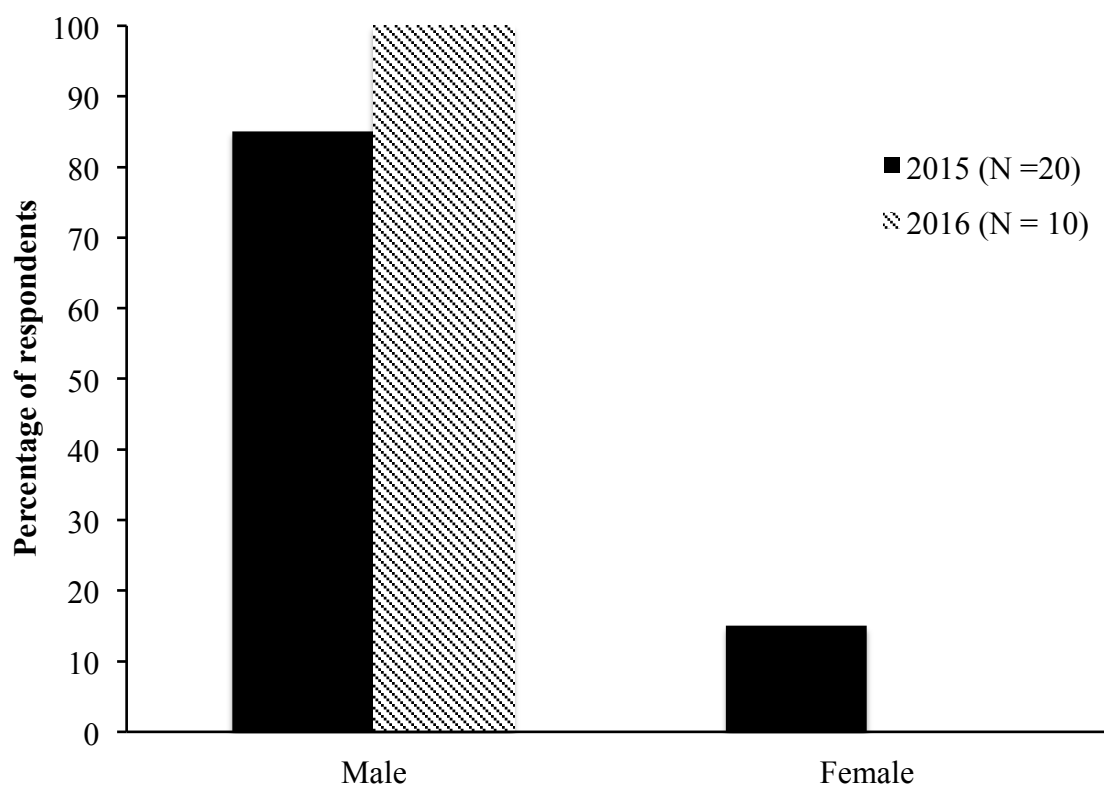
	2015	2016
Food product research and development	1	0
Food Manufacturing	2	0
Quality Assurance	0	1
Food Chemist	1	0
Food Microbiologist	1	0
Food Researcher	3	1
Food processing	0	0

This group has interest in Agricultural Communications in Agricultural Economics, Animal Sciences, Agricultural Engineering and Food Science. Whilst there are not big numbers in any one category, it would be worthwhile distributing this information to industry organisations for a request for promotional material. Speakers from these employment groups would help students to better understand what employment opportunities are available to them.

**Figure 36. Student Knowledge, Understanding and Skills developed as a result of having completed the Agribusiness (202) Programme**

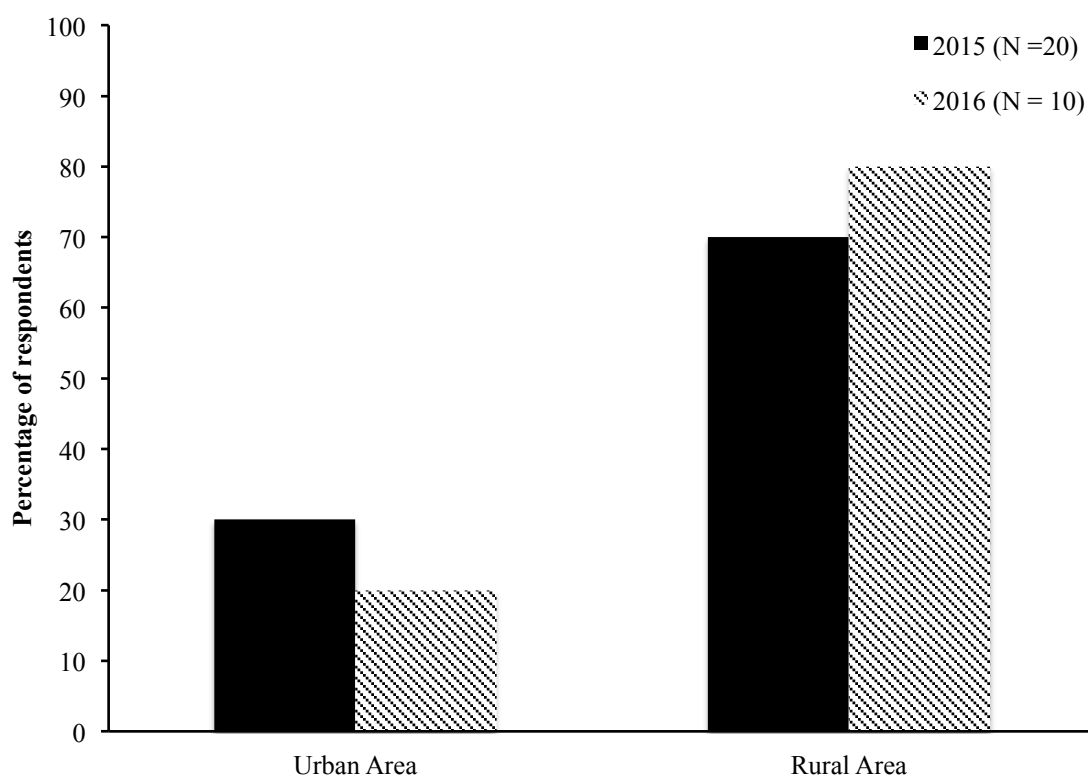


From Figure 36 students indicated that they developed a better knowledge of different aspects of agricultural science and business and had been introduced to a range of career opportunities relating to different aspects of agricultural science and business. It would be good if students were provided with information packs as to where they can follow up these options for tertiary study and employment opportunities.



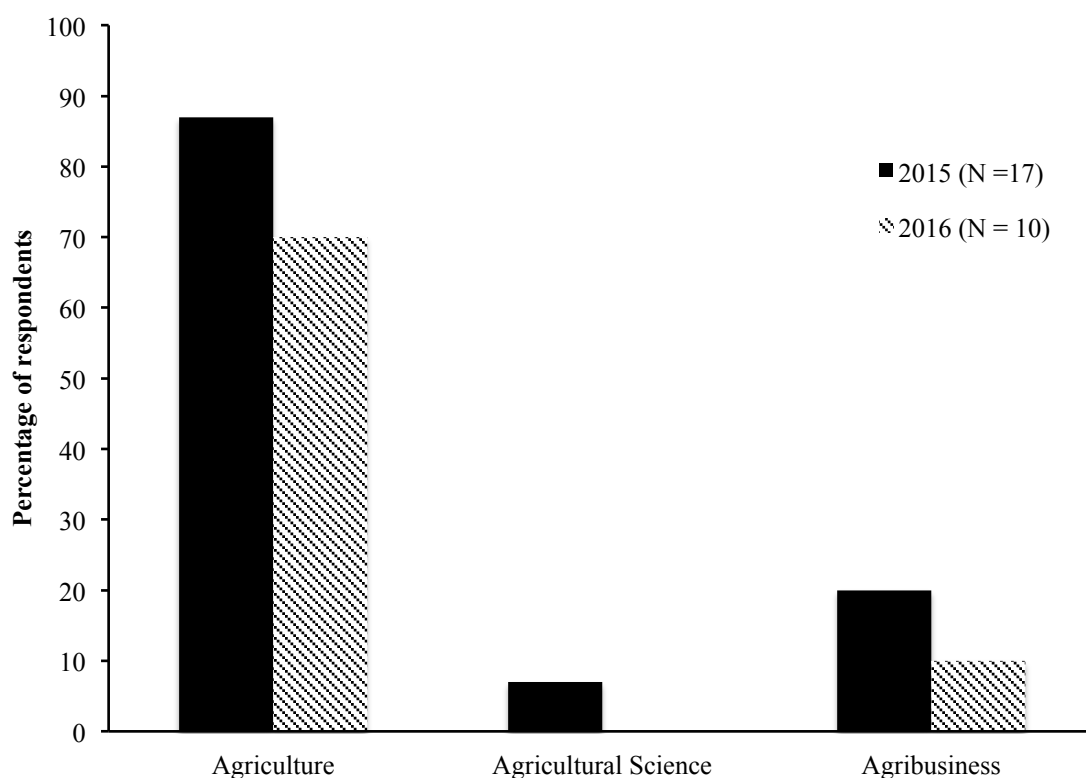
**Figure 37. Respondent Demographic Information**

Figure 37 details the gender of respondents. In 2015, 85% of respondents were male and in 2016, all 100% were male. Whilst this might be expected to some degree, it will be important to the programme that more female students are encouraged to become involved. The difference may well be because female students have not been made as aware of the options available to them, or they have not considered agribusiness as a career option.



**Figure 38. Respondent Residential Location**

As with the other programmes the respondents were mainly rural dwellers. There were however significant numbers of urban dwellers involved in the (302) Programme in 2015. It would be worthwhile considering how more urban students could be encouraged to consider agribusiness as a tertiary study and career option.



**Figure 39. Agricultural Occupations: Caregiver Status**

Once again, large numbers of caregivers are involved in agriculture occupations in the two years surveyed. One of the challenges for the school is to encourage more students to take up further study in agribusiness and agricultural science fields. This might eventually encourage a somewhat higher percentage of students to become involved in agricultural science and agribusiness occupations. More intensive agricultural land use may help to promote the need for people trained in agricultural science and agribusiness.