

Diversity Monitor VU 2017

**Enrolment, dropout and graduation at Vrije Universiteit Amsterdam
2006 – 2015**

Report in the context of the Taskforce 'The Future is Diversity',
Working Group Database

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1. Introduction

How ‘diverse’ and ‘inclusive’ is the VU in relation to the gender, ethnic/migration background, and educational trajectory of its students? What about the composition of the enrolling students, and what about dropout and graduation rates; do differences exist between various groups of students?

This report is written in the context of the Database working group of the Taskforce *The Future is Diversity*, a cooperation of the Free University Amsterdam (VU), the Erasmus University (EUR), and the University Leiden (UL). The Database working group set out with two goals: (1) to map and compare the situations at the participating universities, (2) with this report, to provide a format and a baseline measurement for future, yearly reporting.

This report contains the figures of the VU between 2006 and 2015; for the VU as a whole and for the separate faculties (or actually: sectors – see the explanation in the next section). In its setup, it is based on the report written for the Erasmus University by Meeuwisse, Scheepers, Stegers-Jager and Wolff (2017).¹ These separate reports provide input for a comparison between the universities, described in another document (Slootman & Wolff 2017).

Please, be aware that the figures only present a *description*. When differences exist between different categories of people, their demographic characteristic, such as gender or ethnic background, is *not* to be taken as an explanation per se. Rather, such differences direct the immediate research agenda: we need to discover the causes and mechanisms that explain these differences.

Content of the report

In this document we report on the VU student enrolment (chapter 3), dropout rates after 2 years of study (chapter 4) and graduation rates after 4 and 6 years of study (chapter 5), based on the 1CijferHO-datafile that is provided to the VU by DUO. Figures are presented on the institutional level of the entire VU, and per sector. The figures behind the sector comparisons are included in the Appendix.

We compared categories of students, based on gender, ethnic and migration background, and pre-university education level. Unfortunately, to prevent the report from becoming too long, for study success we do not analyze the interactions of the various dimensions (e.g. ethnic background and gender). To facilitate the interpretation of the numbers, we present cross-tables in the chapter on enrolment.

Chapter 6 contains some summarizing and concluding remarks. For detailed recommendations, see the synthesizing document (Slootman & Wolff 2017). In the next chapter (chapter 2) we first provide information about the dataset and the definitions.

2. The 1CijferHO-datafile and definitions

For the analyses, the Database working group used 1CijferHO data. The reason is that all universities have institutional datafiles with 1CijferHO-data, which have identical designs and contain the same variables. Consequently, every university can run the same analyses. For this current report, we used the 1CijferHO institutional-VU datafile, with data between 2006 and 2015.

We mapped study progress using the indicators dropout and graduation. This choice is a consequence of the choice to use the 1CijferHO-institutional datafiles, which does not enable us to analyse study progress in more detail (for example based on GPA or credits per year). Such analyses can only be conducted with data that are specific for the VU. It is important to keep in mind that differences might exist between the 1CijferHO-data and the data in internal VU reporting.

As the analysis confirms, descriptions of the university require descriptions of the various faculties, as the university is far from homogeneous. However, the 1CijferHO-institutional data is organized in study-‘sectors’, which do not exactly overlap with the university faculties. Hence, the sector figures presented in the report, are only roughly indicative for the faculties. An overview of the faculties and sectors is included at the end of this chapter.

Selected students

For our analyses, we have selected the students in the 1cHO datafile that enrolled in 2006 to 2015 for the first time at the university, and who registered as a first-year-student for a specific course program (*opleiding*). The selection includes ‘*eerstejaars-instelling-opleiding*’ students of 2006-2015 who enrolled full-time for a BA course program as ‘*hoofdinschrijving*’ or ‘*neveninschrijving*’. The selection also includes students who switched from other higher education institutions. See Appendix B for more technical details.

Operationalizing diversity

We analysed diversity on the dimensions of ethnic background, ethnic/migration background, gender, previous education level and refugee status. For each of these dimensions, we compared the following groups (categories):

- **Ethnic background**
 - having no migration background (both parents are born in the Netherlands)
 - having a migration background in a ‘Western’ country (at least one parent is born abroad, in a ‘Western’ country)
 - having a migration background in a ‘non-Western’ country (at least one parent is born abroad, in a ‘non-Western’ country)

- **Ethnic/migration background:** ethnic background combined with 'migrant generation'. Among the students with an immigrant background, the 'bicultural students', we distinguish foreign-born students (the so-called 'first generation') and Dutch-born students (the so-called 'second generation'). To separately categorize international students, we divide the foreign-born into students whose education before higher-education was in the Netherlands and students whose education before higher-education was abroad. It is likely that most of the latter students are international students.² The categories are:
 - no migration background
 - 'Western', 1st generation, Dutch pre-WO education
 - 'Western', 1st generation, foreign pre-WO education ('international students')
 - 'Western', 2nd generation
 - 'non-Western', 1st generation, Dutch pre-WO education
 - 'non-Western', 1st generation, foreign pre-WO education ('international students')
 - 'non-Western', 2nd generation (foreign-born)
- **Gender**
 - male
 - female
- **Pre-VU education:** previous education, before coming to the VU.
 - VWO (pre-academic track)
 - HBO-P (*propedeuse*)(= 1st year-diploma)
 - HBO-Other
 - WO (other university)
 - Foreign
- **Refugee status**, or rather: being born in Iraq, Iran, Afghanistan or Somalia, the countries of origin that most refugees in the Netherlands come from. These figures are only presented at the institutional level, as the numbers at the sector level are only small.
 - No, not born in one of these four countries
 - Yes, born in one of these four countries

Operationalizing study success: dropout

'Dropout' refers to the shares of students who are not re-enrolled two years after their initial enrolment at the institution (who are not a *herinschrijver*). Contrary to definitions often used, which rely on dropout rates after one year, we take a two-year period because some course programs give their *BSA*'s (Binding Study Advice) after two years.

To make the charts easier to read, for the dropout analyses we combined cohort groups. The dropout percentage of a combined cohort group is the average of the percentages of the two cohorts. Dropout rates are calculated for the following combined cohorts:

- cohort group 2006-2007 (students who enrolled at the VU for the first time in 2006 or 2007)
- cohort group 2008-2009 (" " in 2008 or 2009)
- cohort group 2010-2011 (" " in 2010 or 2011)
- cohort group 2012-2013 (" " in 2012 or 2013)

Operationalizing study success: graduation

'Graduation rates' include students who graduated at the VU four or six years after their initial enrolment at the VU. Usually, reports on study success only include graduation rates after four years. We also include the graduation rate after six years, to also report on students for whom it takes longer to graduate (the *langstudeerders*). As we will see later, a considerable share of students obtain their diploma between four and six years. Leaving the *langstudeerders* out of the analysis falsely implies that they leave without success.

Also here, we combined cohorts, and the graduation rate of a combined cohort group is the average of the percentages of the two cohorts. Graduation rates are calculated for the following combined cohorts:

- Graduations rates after 4 years of study:
 - o cohort group 2006-2007
 - o cohort group 2008-2009
 - o cohort group 2010-2011
- Graduations rates after 6 years of study:
 - o cohort group 2006-2007
 - o cohort group 2008-2009

Sectors and faculties

As mentioned, the sectors do not fully overlap with the faculties. Tables 1 and 2 show which sectors contain which course programs, and how sectors and faculties are related. (The sector 'Cross-sector', which contains the students of the Amsterdam University College, is too small to include in the analyses. Around 100 first-year BA students enrol per year.)

Table 1 Course programs covered by the various sectors at the VU

Sector	Course program	Faculty	Sector	Course program	Faculty	
Cross-sector	Liberal Arts & Sciences	AUC	Behavior and Society	Pedagogische Wetenschappen	FGB	
	Liberal Arts & Sciences (joint degree)	AUC		Psychologie	FGB	
Nature	Aarde en Economie	ALW	Society	Cult. Antropologie en Ontw.sociologie	FSW	
	Aardwetenschappen	ALW		Politicologie	FSW	
	Biologie	ALW		Sociologie	FSW	
	Business Analytics	FEW		Bestuurs- en Organisationswetenschap	FSW	
	Computer Science	FEW		Communicatiewetenschap	FSW	
	Farmaceutische Wetenschappen	FEW		Criminologie	RCH	
	Informatie, Multimedia en Mngmt	FEW		Language and Culture	Algemene Cultuurwetenschappen	FGW
	Lifestyle Informatics	FEW			Archeologie	FGW
	Medische Natuurwetenschappen	FEW			Communicatie- en Inf.wetensch.	FGW
	Natuur- en Sterrenkunde	FEW	Duitse Taal en Cultuur		FGW	
	Scheikunde	FEW	Engelse Taal en Cultuur	FGW		
	Science, Business & Innovation	FEW	Franse Taal en Cultuur	FGW		
	Wiskunde	FEW	Geschiedenis	FGW		
Health Care	Biomedische Wetenschappen	ALW	Griekse en Latijnse Taal en Cultuur	FGW		
	Gezondheid en Leven	ALW	Kunstgeschiedenis	FGW		
	Gezondheidswetenschappen	ALW	Literatuur en Samenleving	FGW		
	Bewegingswetenschappen	FGB	Literatuurwetenschap	FGW		
	Geneeskunde	GNK	Media, Kunst, Design en Architectuur	FGW		
Economics	Tandheelkunde	THK	Nederlandse Taal en Cultuur	FGW		
	Bedrijfskunde	FEWEB	Oudheidkunde	FGW		
	Econometrie en OR	FEWEB	Taalwetenschap	FGW		
	Economie en Bedrijfseconomie	FEWEB	Wijsbegeerte	FGW		
Law	International Business Administration	FEWEB	Religiewetenschappen	GGL		
	Notarieel recht	RCH	Theologie (joint degree)	GGL		
	Rechtsgeleerdheid	RCH				

Table 2 Course programs covered by the various sectors at the VU

Faculty	Sector	Share	Faculty	Sector	Share
ALW	Nature	22%	FGW	Language & Culture	100%
	Health Care	78%		FSW	Behavior & Society
AUC	Cross-sector	100%	GGL		Language & Culture
FEW	Nature	100%	GNK	Health Care	100%
FEWEB	Economics	100%	RCH	Law	76%
FGB	Health Care	34%		Behavior & Society	24%
	Behavior & Society	66%	THK	Health Care	100%

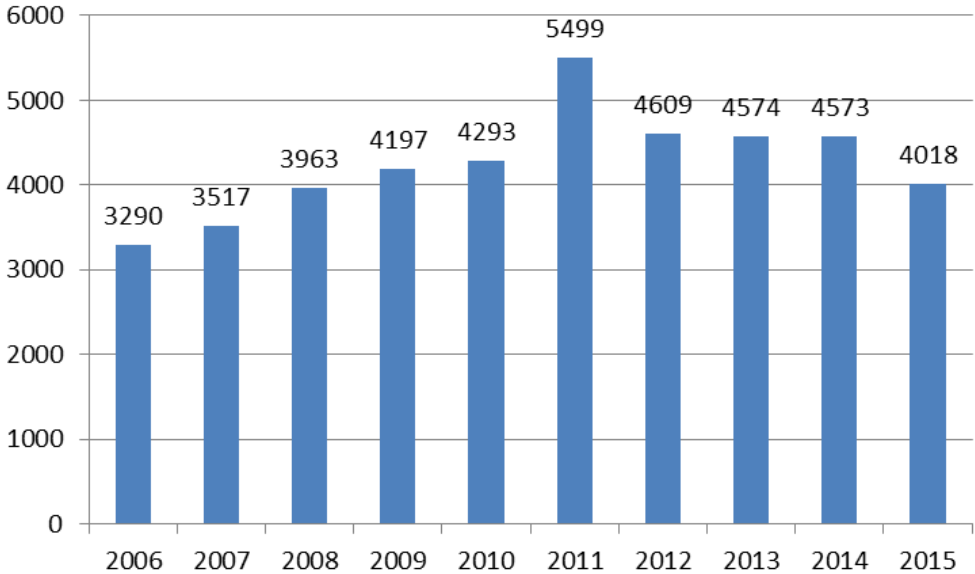
3. Enrolment

This section presents the figures of first-year enrolment of the fulltime Bachelor students of the VU in the years 2006-2015. We subsequently show the composition of the enrolled student body for the entire institution, categorized by ethnicity, gender and highest pre-VU education and refugee-position. To give an impression of the intersections, we also present figures on the combination of gender, ethnicity and pre-VU education level. Based on the figures of the separate sectors as included in the Appendices, we briefly describe the enrolment in the various sectors.

3.1 Total enrolment

In the last decennium, the enrolment of first-year BA students has increased from 3,290 and 3,517 in 2006 and 2007 to 4,573 and 4,018 in 2014 and 2015 (see Figure 1). As we will see later, this increase is largely due to an increased number of students who enter the university via 'alternative' educational routes (in particular via 'HBO-Overig'). The sudden peak in 2011 can be entirely explained by a sudden increase of students who come from 'HBO-Overig'.

Figure 1 Enrolling first-year BA students at the VU (2006-2015)



Sectors compared

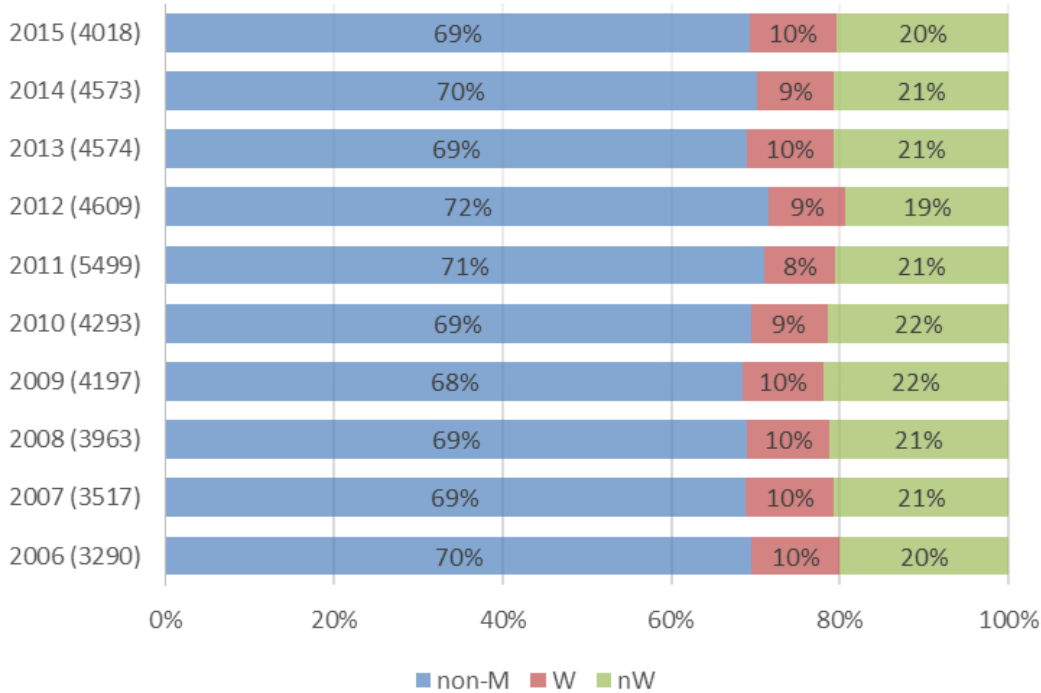
For the VU, the largest sectors are Health Care, Economics and Behavior & Society (see the Appendix, Figure A. 1). Particularly in Economics and in Behavior & Society, we see the peak in 2011 that we also saw for the VU as an institution. Not all sectors have

grown over the years; only Nature, Health Care (apart from 2015), and Behavior & Society did.

3.2 Ethnic and migration background

To facilitate the interpretation, we not only use the ethnic/migration variable with seven categories, but we have also included the variable with the three main ethnic categories. See Figure 2 for the enrolment.

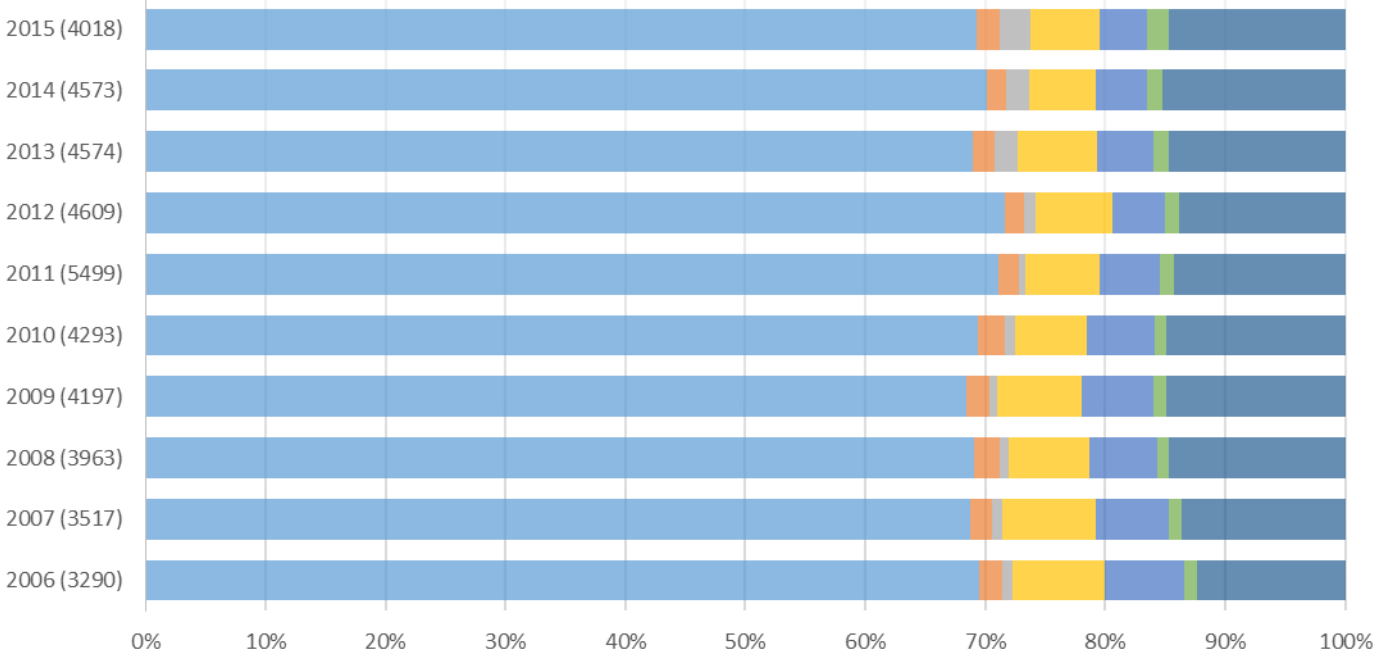
Figure 2 Ethnic background of students enrolling at the VU (2006 -2015)



Here, we see that since 2006, the ethnic composition of the enrolled students has not greatly changed. A little under one-third of the students are ‘bicultural’, and have a migration background. 69 to 72% has no immigrant background, and is commonly considered as ‘ethnic Dutch’. Of the bicultural students, two-thirds has roots in a ‘non-Western’ country, and one third in a ‘Western’ country. In the (slight) fluctuation over the years, no clear trend can be observed.

Figure 3 shows more details on migration background. The majority of the bicultural students (57% of those with ‘Western’ roots, and 72% of those with ‘non-Western’ backgrounds) is Dutch-born. The number of international students (to be precise: those born abroad whose education before higher education was outside the Netherlands), has increased since 2013, although in 2015 they still make up only 4% of the first-year BA students.

Figure 3 Ethnic and migration background of enrolling students (2006 -2015)



	2006 (3290)	2007 (3517)	2008 (3963)	2009 (4197)	2010 (4293)	2011 (5499)	2012 (4609)	2013 (4574)	2014 (4573)	2015 (4018)
non-Migr	70%	69%	69%	68%	69%	71%	72%	69%	70%	69%
W/1/NL	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
W/1/For	1%	1%	1%	1%	1%	1%	1%	2%	2%	3%
W/2	8%	8%	7%	7%	6%	6%	6%	7%	6%	6%
nW/1/NL	7%	6%	6%	6%	6%	5%	4%	5%	4%	4%
nW/1/For	1%	1%	1%	1%	1%	1%	1%	1%	1%	2%
nW/2	12%	14%	15%	15%	15%	14%	14%	15%	15%	15%

It seems that over time, half of the first-generation students from ‘non-Western’ countries is replaced by second-generation students. For those with ‘Western’ backgrounds, we do not see such trend, although it seems here that recently, a small share of the second-generation students has been replaced by international students.

Sectors compared

The charts of the separate sectors shows that the university is not homogeneous in its composition. The share of bicultural students varies between the sectors (see the Appendix Figure A. 2). The Law segment stands out, having a relatively high share of students with ‘non-Western’ migration backgrounds (ranging, over the years, between 33 and 50%). In this segment, in recent years, ethnic-Dutch students were the minority – with a remarkable rupture of this trend in 2015. Economics has the second-largest share of students with ‘non-Western’ migration backgrounds (20-24%). Language & Culture

has the smallest share (11-16%), and the sectors in between are Health Care (17-21%) Nature (16-22%), Behaviour and Society (14-21%). This supports the idea that Law and Economics, as 'emancipatory' domains – which prepare for professions with relatively high financial/status positions – are relatively attractive for people with migrant backgrounds (Wolff 2013); much more so than for example the Humanities. The share of students with a 'Western' migration background grossly fluctuates between 9 and 12% in the segments. No clear trends are observed over the years, within nor between the sectors.

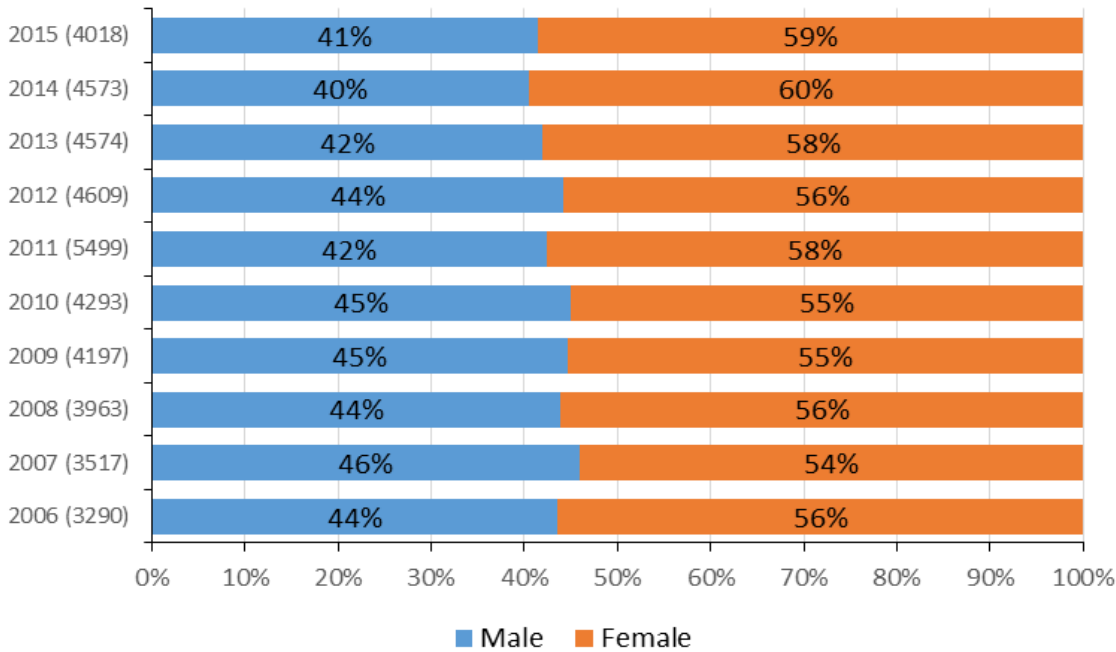
The composition of the migration background does not vary much between sectors (see the Appendix Figure A. 3; note that in all sub-charts the x-axis starts at 40%). In all sectors, among the bicultural students, the second generation makes up the largest share. The only observation that stands out is the relatively large share of students who are born in a 'non-Western' country (first generation with a Dutch pre-education) in the sector Law. Nature and Economics have seen an increase in international students from 'Western' and 'non-Western' countries in the last two to three years.

3.3 Gender

Female students outnumber the male students at the VU (see Figure 4). This gap exists for all ethnic/migration categories (see students from 'non-Western' countries (52% of them are female), and widest among foreign-born students with a 'Western' background (60% are female), and Dutch-born students with 'non-Western' backgrounds (59% are female).

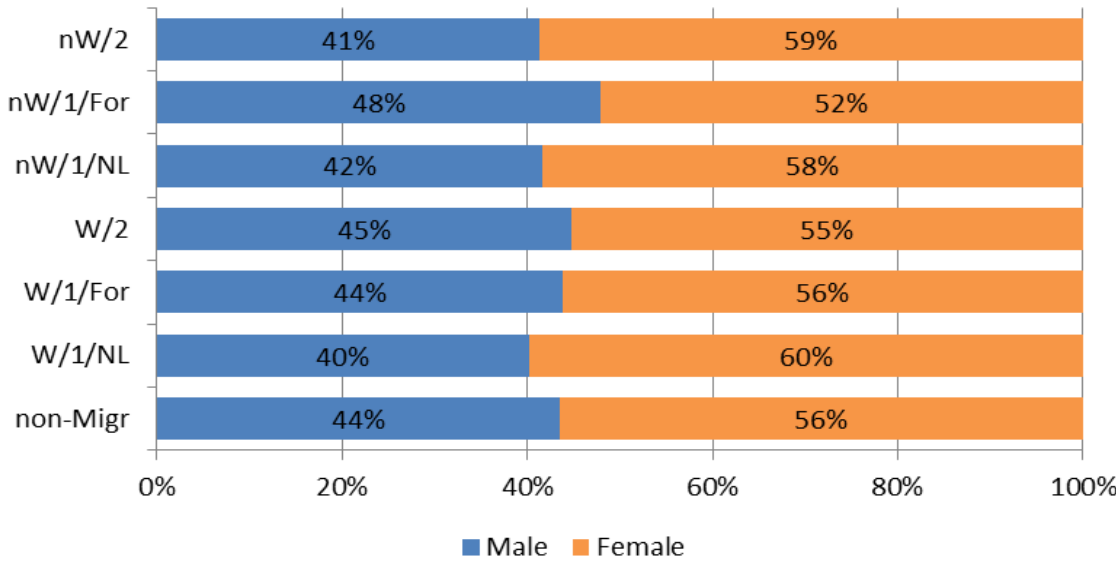
Figure 5). It is smallest among the international

Figure 4 Gender of enrolling students (2006 -2015)



students from ‘non-Western’ countries (52% of them are female), and widest among foreign-born students with a ‘Western’ background (60% are female), and Dutch-born students with ‘non-Western’ backgrounds (59% are female).

Figure 5 Gender of enrolling students, per ethnic/migration category (all cohorts together)



Sectors compared

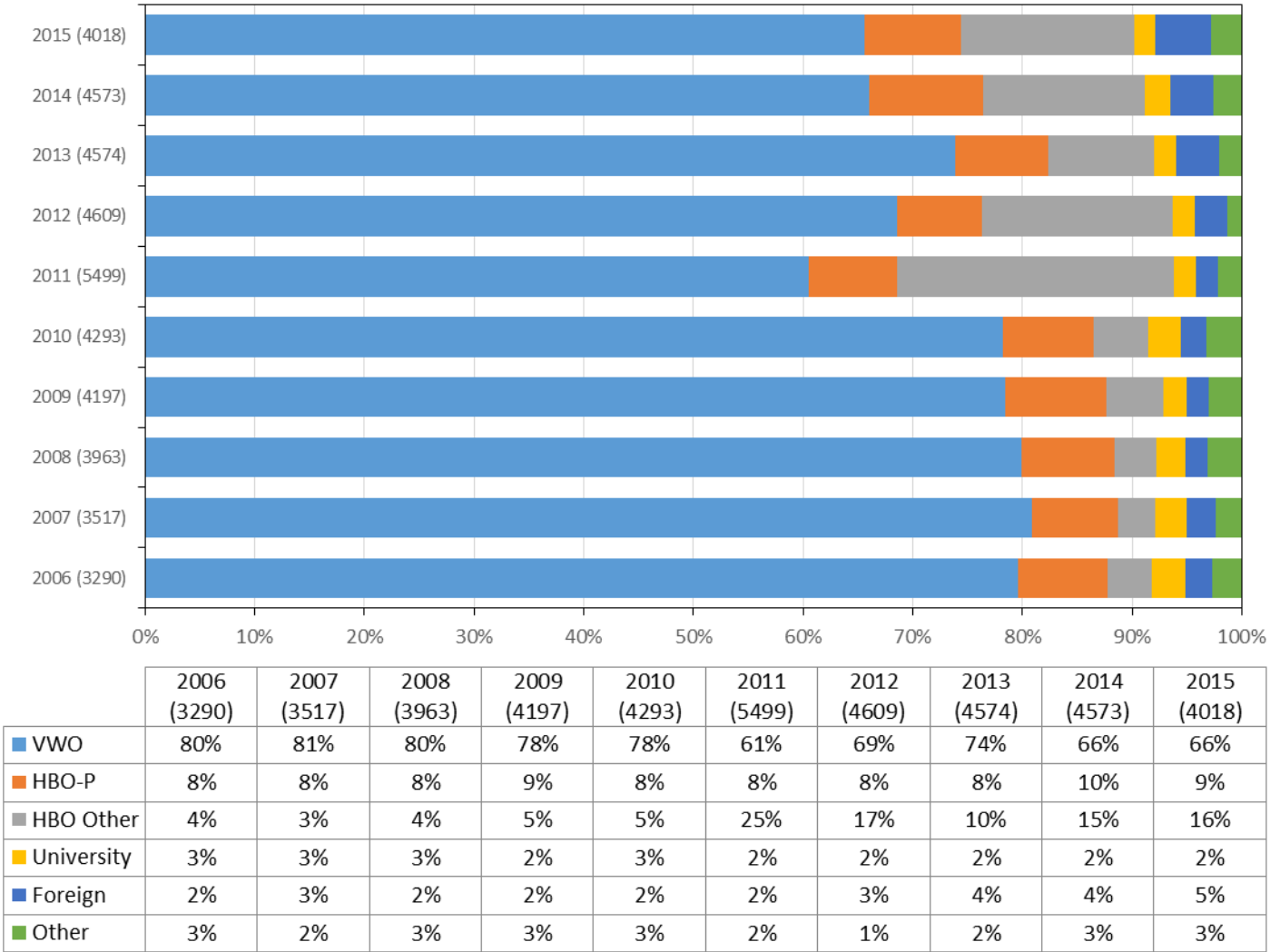
Also with regard to gender, the university is not a homogeneous institution at all (see the Appendix, Figure A. 4). In none of the sectors, the presence of male and female

students is equally balanced. Nature and Economics are more strongly preferred by male students (around two third of the students are male). The other sectors are more strongly preferred by female students. In 2015, the shares of female students in these sectors were 71% (Health Care), 68% (Language & Culture, and Behavior & Society, and 61% (Law). There are no clear trends over time.

3.4 Highest pre-VU education

In all years, the majority of the enrolling students (60-80%) entered the VU via the pre-academic track (VWO) (see Figure 2). Before 2011, around 20% came via an alternative route. After 2011 this share increased to one third (34%) in 2014 and 2015, primarily because of an increase of students with ‘HBO-Other’ education levels. 2011 was a peak year: the students who came via ‘HBO-Other’ routes peaked at 25%, which made that 39% of the enrolling students came via alternative tracks. The share of international students has increased since 2011, from 2% to 5% in 2015.

Figure 6 Highest pre-VU education of enrolling students (2006 -2015)



Ethnic Dutch students more often (77%) come via the pre-academic VWO track at the VU than the bicultural students (63 and 62%) (see Figure 7). When we look into migration background in more detail (see Figure 8), we see that it makes sense to make a distinction based on immigration phase: the gap with the second-generation students is smaller than with the first-generation students. Dutch-born bicultural students with 'Western' roots nearly equally often come via the VWO track as the ethnic-Dutch students (75%). Also the gap with Dutch-born students with 'non-Western' roots is not as large as some might think (69% of them comes from VWO).³

Figure 7 Highest pre-VU education, per ethnic category (all cohorts together)

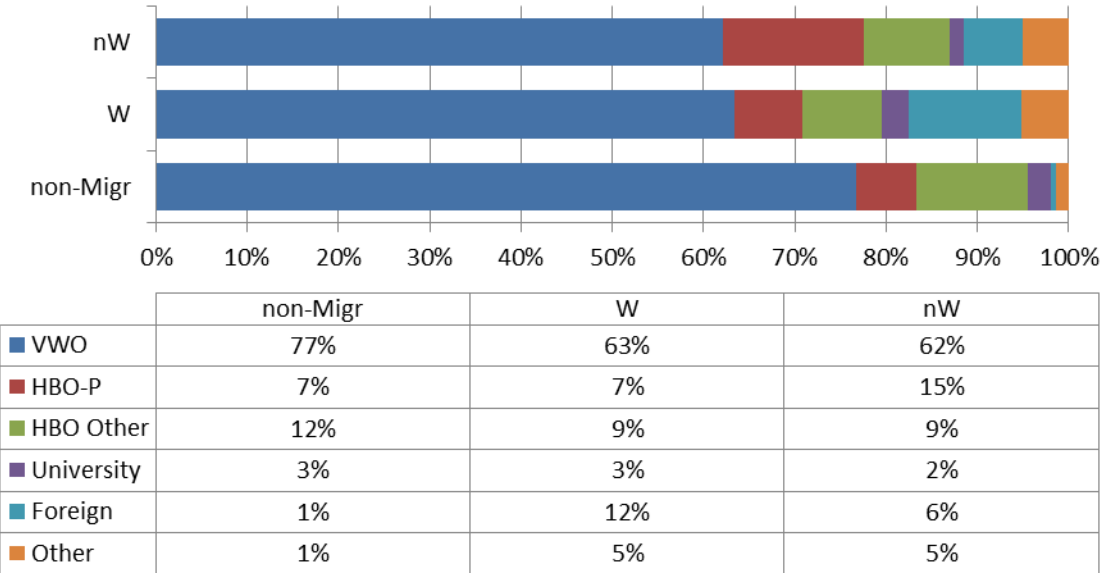
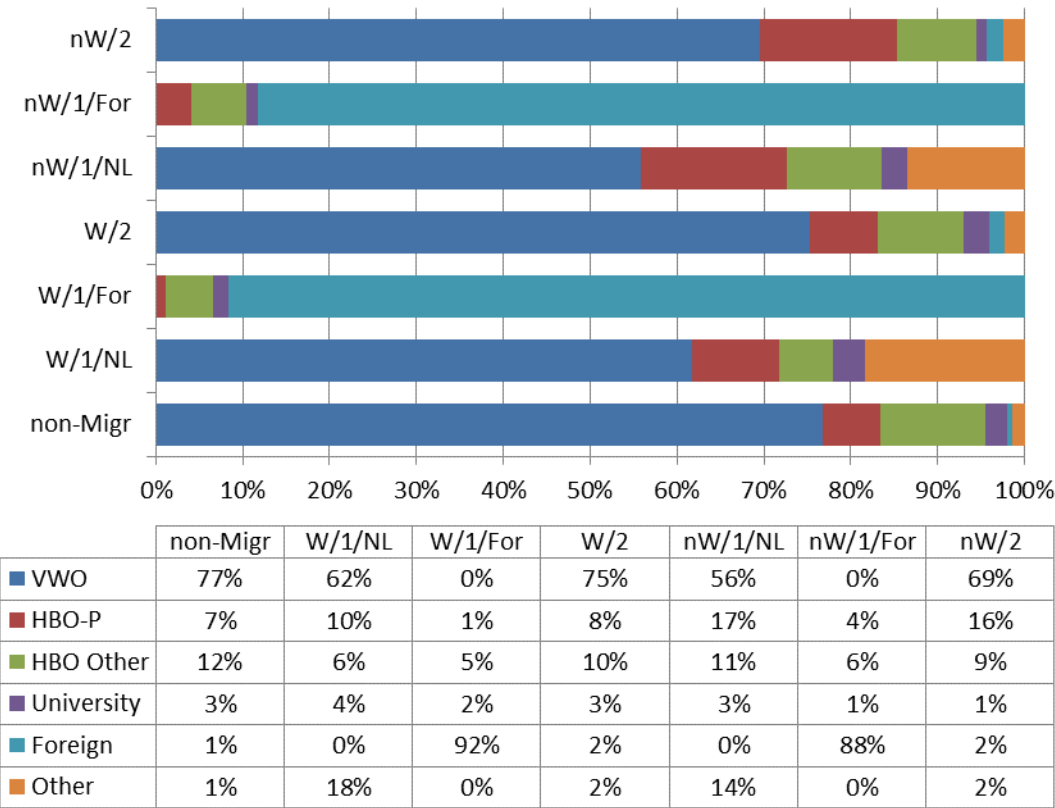


Figure 8 Highest pre-VU education, per migration/ethnic category (all cohorts)



Sectors compared

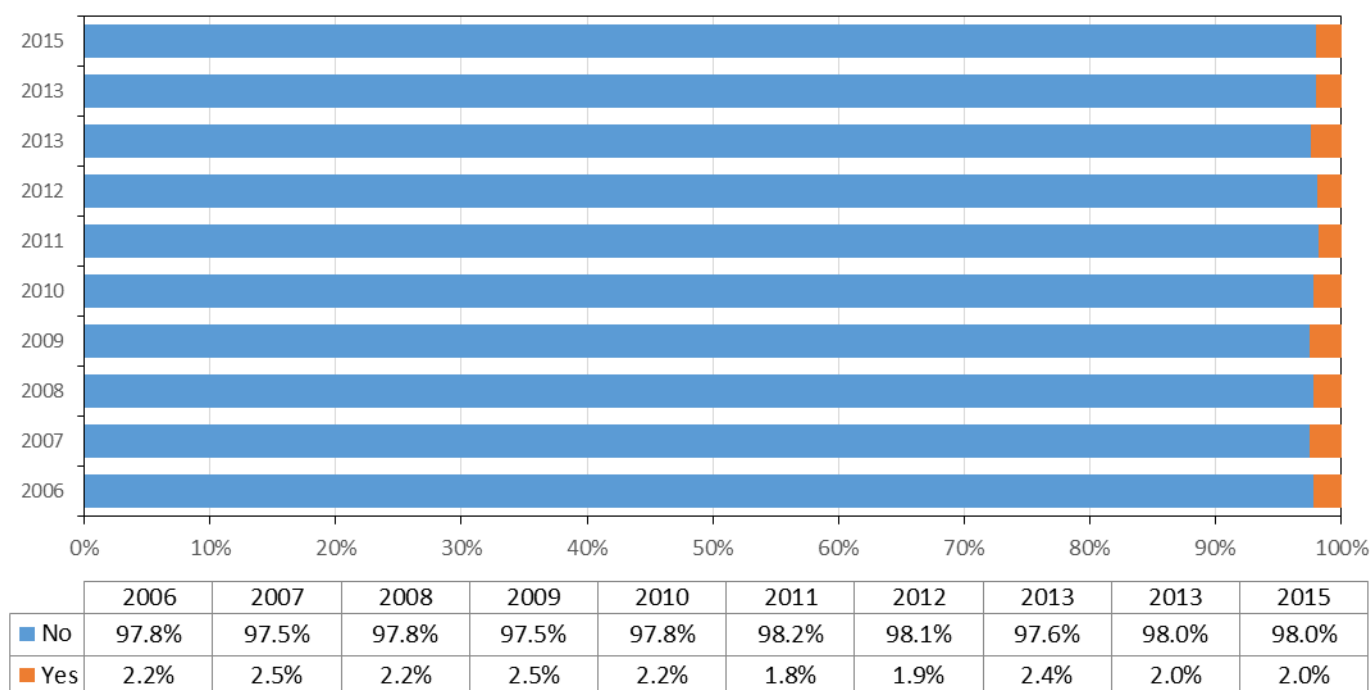
Nature, Health Care and Economics are relatively homogeneous. In all three, a large majority, 80 to 90%, enters the VU directly from a pre-academic track (VWO) (see Figure A. 5, note that the x-axis again starts at 40%). Only, in Economics in 2011 and 2012 there is a huge enrolment from HBO-Other. While in other years hardly any students come via the HBO-Other track, suddenly 40 and 34% of the students come from this track. In Nature, 2015 is the exception, with a relatively diverse student composition. In that year, 33% of the students came via an alternative track.

The other three sectors have much more diverse enrolling student bodies. Law has many students with a HBO-P background, in the last years, this share was between 35 and 45% (except for 2015, when it was only 5%). Here, the share of HBO-Other decreased sharply since 2011. In Behavior & Society, in the last two years, the VWO students were a minority. Most students came from HBO, either from HBO-P (12-20% in the last years) or from HBO-Other (18-33% in the last years). In Language & Culture this picture is rather similar. In the last years only around half of the students had a VWO background. 25-40% came via the two HBO-routes. In this sector, the share of students coming from other universities is largest (around 10% of the enrolling students in the last three years).

3.5 Refugee status (being born a refugee country)

Around two percent of the enrolling students were born in Iraq, Iran, Afghanistan or Somalia (see Figure 9). Probably, a large share of these students are refugees. This percentage lightly fluctuates between 1.8 and 2.5%, but there is no clear trend over time. (Because of the small numbers, we do not analyze this on sector level).

Figure 9 Students enrolling at VU born in a refugee country (no/yes) (2006-2015)



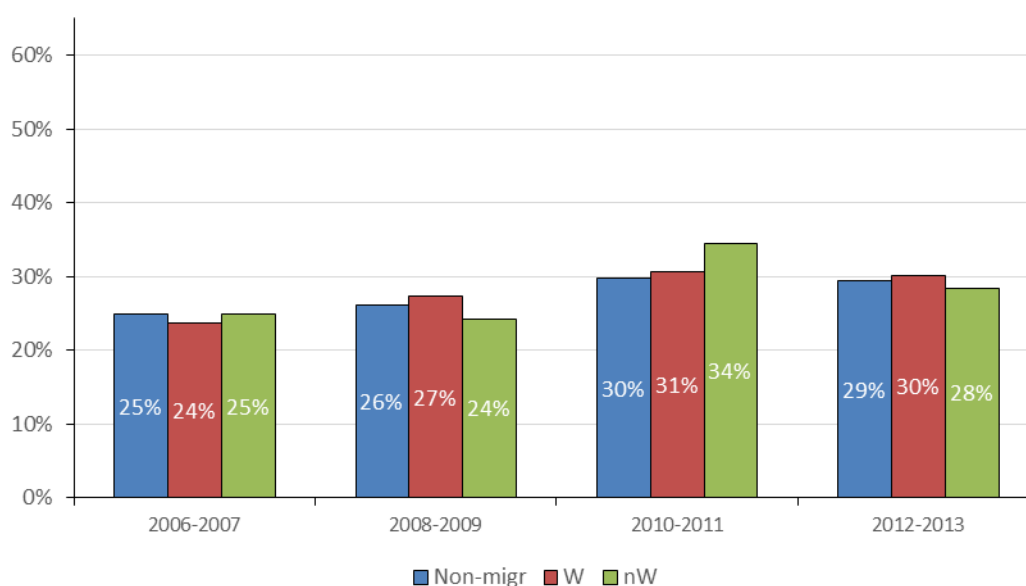
4. Dropout rates 2 years after enrolment

We now analyze the dropout rates after the first two years. These refer to the students who are no longer enrolled at the VU two years after their first year of enrolment..

4.1 Ethnic and migration background

Contrary to what is often assumed, bicultural students do not have higher dropout rate than ethnic Dutch students in the first two years after their initial enrolment (see Figure 10). The dropout among the cohort that started in the years 2010 and 2011 is slightly higher than in the other cohorts. Maybe this is related to the enrolment peak in 2011. This is also the only cohort where the students with 'non-Western' backgrounds have (slightly) higher dropout rates than the other students.

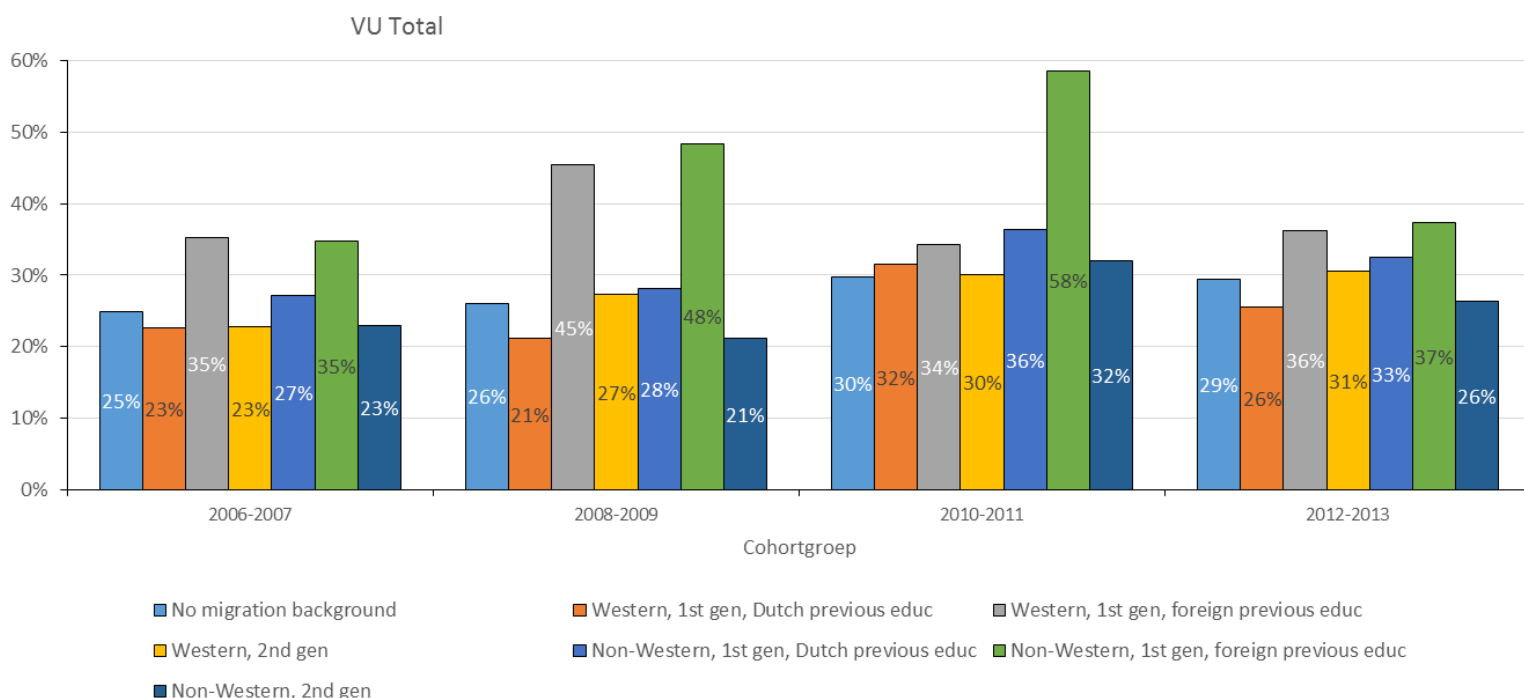
Figure 10 Dropout, % per ethnic category



Considering the background of the students in more detail (see Figure 11), we see that the conclusion that ethnic groups do not differ in their dropout rates, is too general. Apparently, the categorization of students based on their ethnic background (split up in the three commonly used main categories) is too broad to draw conclusions. Actually, second-generation bicultural students drop out less than first-generation students. Particularly students with 'non-Western' backgrounds drop out relatively little; less than all other groups. The students who had their pre-university education abroad (no matter if they were born in a 'Western' or 'non-Western' country) drop out relatively often. We have no explanation for this now; further knowledge of the situation of these students is

needed to understand this. Fact is that these categories, just like the category of students who are born in a 'Western' country with a Dutch pre-university education, are very small; which is why we excluded these categories in the charts for the separate sectors.

Figure 11 Dropout, % per ethnic/migration category



Sectors compared

To compare the dropout between years and sectors in general, first we only look at the ethnic Dutch students (see Figure A. 6). Apparently, dropout rates vary per sector and per cohort. Nature and Health Care have the lowest dropout rates (fluctuating between 18-27% for the ethnic Dutch students), followed by Behavior & Society and Law (22-36%). Language & Culture and Economics and have the highest dropout rates (32-40%).

Now we compare the three ethnic categories (see Figure A. 6). In most (combined) cohorts, the bicultural students have *comparable or lower* dropout rates than the ethnic Dutch students. This is the case for nearly all cohorts in Health Care, Economics and Behavior & Society. In Nature and Law, this is the case for half of the cohorts. In Language & Culture – except for the last combined cohort (2012&2013) – the arrear particularly of the students with 'non-Western' backgrounds is striking.

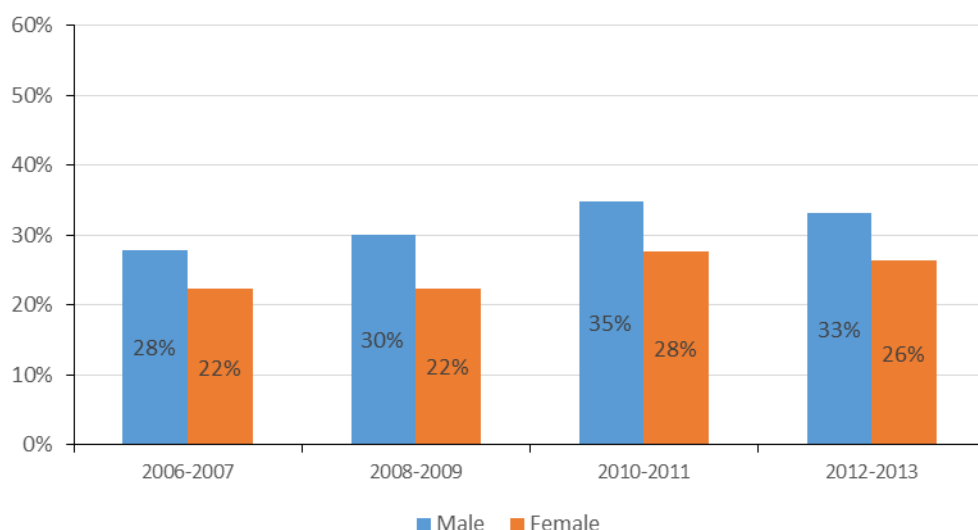
Zooming in on the details of the migration background again shows that it can be important to distinguish between generations (Figure A. 7). In most of the cohorts

where students with 'non-Western' backgrounds drop out relatively often, this is particularly caused by a relatively high dropout among foreign-born students.

4.2 Gender

In all cohorts, male students more often drop out than female students (see Figure 12). This is the case in all sectors, in all cohorts (see Figure A. 8), the difference varies between 2 and 15 percent-point. In the sectors Nature and Health Care, the gendergap is smallest (2 to 6 percent-point).

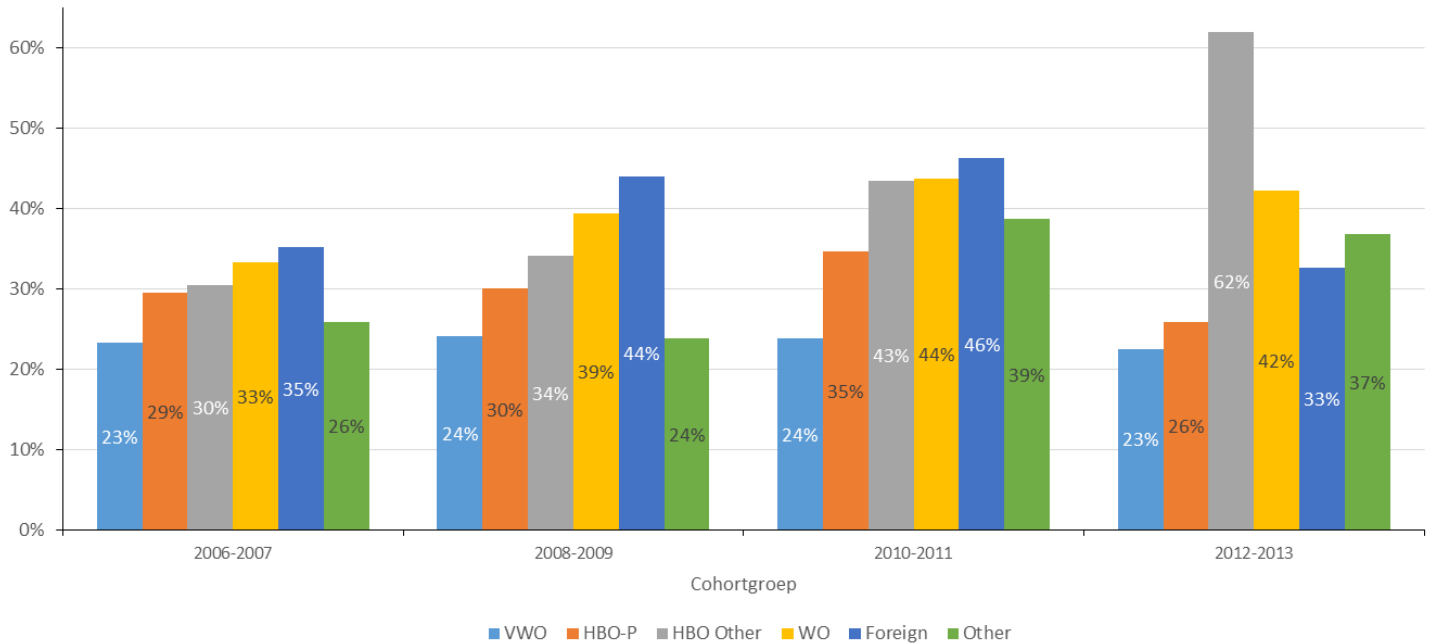
Figure 12 Dropout, % per gender-category



4.3 Highest pre-VU education

At the level of the institution, the dropout is lowest among students who entered the VU from a pre-academic track. It seems that VWO forms the best preparation for the university and that the university is best aligned with VWO (see Figure 13). Particularly students with foreign education drop out relatively often. Remarkably, also among students who came from other universities, the dropout is relatively high. It seems as if dropping out at one university heightens the chance of dropping out another time.

Figure 13 Dropout, % per pre-VU education category



Sectors compared

In the separate sectors, the picture is slightly less coherent (see Figure A. 9). In line with the picture at the institutional level, in the sectors Behavior & Society and Language & Culture it is indeed the case that VWO students drop out least often. They are followed by the HBO-P students, then the HBO-Overig students, and then the other three groups. In Behavior & Society, those who come from other universities (although this is a small group) drop out remarkably often.

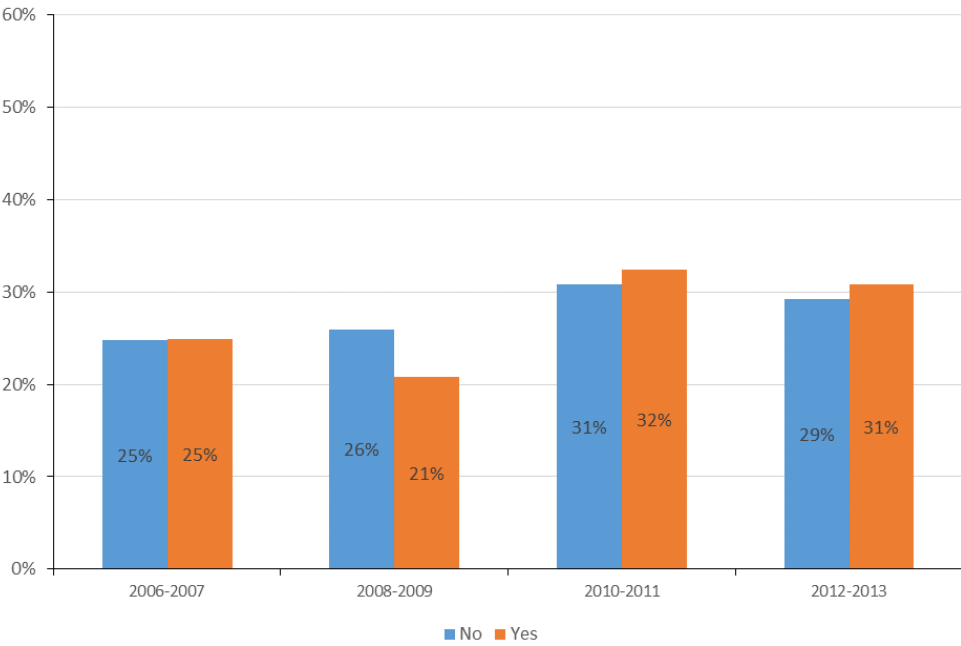
In Health Care, Nature and Economics, the sectors with relatively large shares of VWO students, HBO-P students – a small group though – do better than in the other sectors. The dropout rates of HBO-P students are comparable to, or even smaller than, those of the VWO students.

In most sectors, the gap of the HBO-Overig students with the VWO students is larger than that of the HBO-P students. Except for Law – here the HBO-Overig students even outperform the VWO students. Apparently, HBO-Overig levels relatively well connect with Law programs at the University. The dropout rates for HBO-Overig students in Nature and Health Care are very fluctuating.

4.4 Refugee status (being born a refugee country)

The students who come from one of the four ‘refugee countries’ do not drop out more often than other students (see Figure 14).

Figure 14 Dropout, % per category 'not born/born in refugee country'



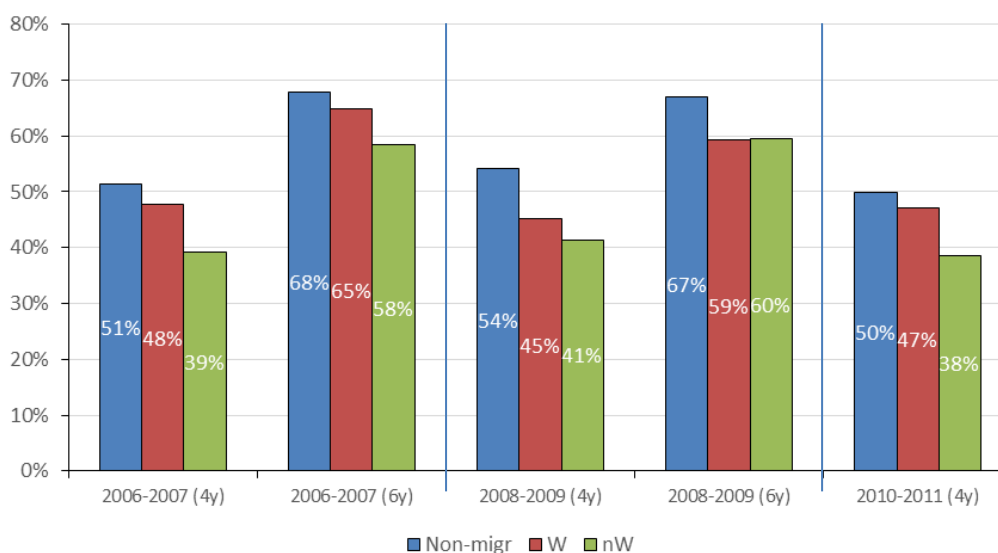
5. Graduation rates 4 and 6 years after enrolment

This chapter presents the graduation rates. We present the shares of the students who have obtained their Bachelors diploma at the VU in four years and six years after their initial enrolment at the VU. (This includes those who switched course program within the VU). We combined the cohorts of students who enrolled at the VU for the first time in 2006 and 2007, and we combined those who initially enrolled in 2009 and 2010. For the combined cohort 2010 and 2011, we only present the graduation rates after four years.

Obviously, the graduation rates (measured as share of the students who enrolled in their first year) are not independent from the dropout rates. Groups with high dropout rates very likely also have low graduation rates. This is why often, in the reporting, graduation rates are presented as shares of the students who reregister after their BSA, and do not drop out in the first phase of their study. However, we prefer the overall graduation rate as the ultimate measure of study success. These figures then can be compared with dropout rates, which further informs us how arrears in study success are built up. For example, if dropout rates after two years are low, but many students drop out after their BSA this is undesirable.

5.1 Ethnic and migration background

Figure 15 Graduation after 4 and 6 years, % of ethnic category



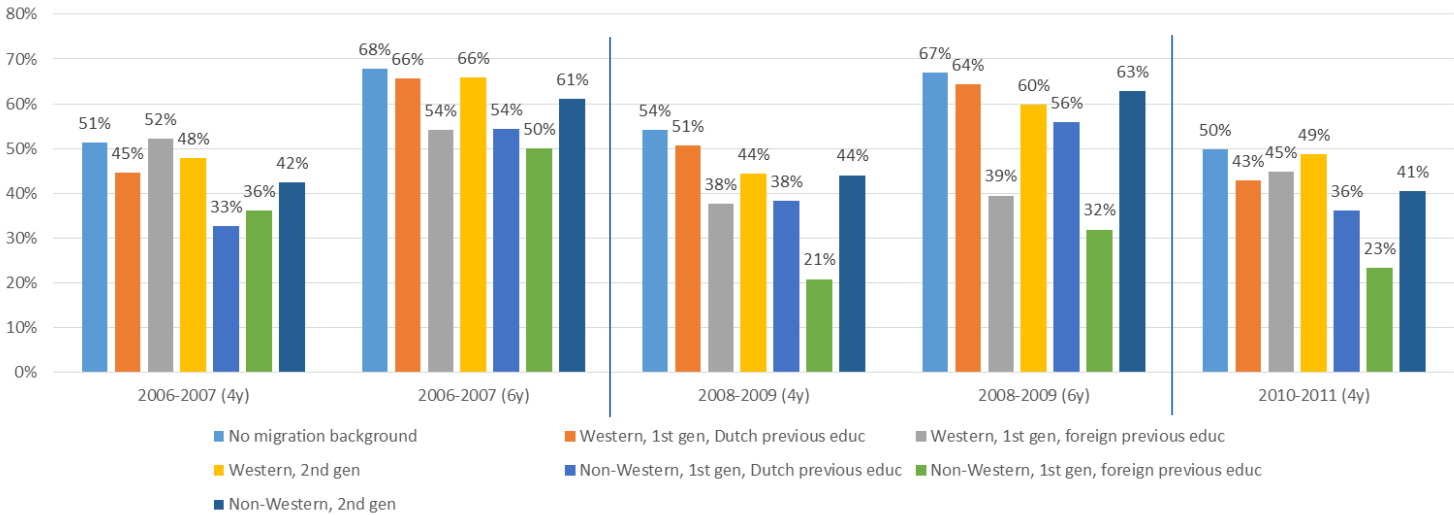
A first, important observation is that the graduation rates increase substantially after a four year study period (see Figure 15). That makes it important, when evaluating study success, to include the *langstudeerders* and consider graduation rates after six years rather than four years. In addition, information about the share of *langstudeerders* among the graduates helps us understand more about (inequalities within) the study trajectory.

In the previous chapter on dropout rates, we observed hardly any differences between the three ethnic groups. However, the graduation rates show that, in the end, bicultural students have an arrear compared to ethnic Dutch students. Students with a background in ‘non-Western’ countries more so than those with a migration background in ‘Western’ countries (see Figure 15). Apparently, bicultural students experience larger barriers to obtain their diplomas, which materialize (or at least: are decisive) *after* the moment of the BSA.

The gaps after four years are larger than after six years. Apparently, some of the gap is still closed after four years of study. For the 2008&2009 cohort, 19 percent of the students with backgrounds in ‘non-Western’ countries obtained their diploma after four years (41% had their diploma in 4 years and 60% in 6 years) against 13 percent of the ethnic Dutch students (an increase from 54 to 67% in two years). The fact that the gap is (somewhat) closed ultimately, does mean however that students with a migration background more often are *langstudeerders*.

Again, we see that it is relevant to include details on immigration background (see Figure 16). The arrear is less big for the second-generation students than for the first-generation students. Although ethnic Dutch students have the highest graduation rates,

Figure 16 Graduation rate after 4 and 6 years, % of ethnic/migration category



the gap with the runner-ups is only small. The difference in graduation rates – after six years – with Dutch-born students with ‘Western’ and ‘non-Western’ backgrounds, and foreign-born students with ‘Western’ backgrounds, is only between 2 and 7 percent-point. The gap with the foreign-born students with ‘non-Western’ backgrounds is larger (10%-12%). The international students have the lowest graduation rates.

Sectors compared

Because the group of Dutch-born students with ‘non-Western’ backgrounds is the largest of the bicultural students, in this reflection we primarily focus on this group. We compare them with the ethnic Dutch students.

While for the 2006&2007 cohort, in most sectors the students with ‘non-Western’ backgrounds have substantially lower graduation rates after six years than the ethnic Dutch students, for the 2008&2009 cohort there are *no such gaps*. Gaps that exist after four years are closed in the last years – at least, they diminished to 3% or less (see Figure A. 11 and Table 3). In the sectors Nature and Language & Culture the gap in graduation rates is 3 percent-point, in Behavior & Society and Health Care it is 2, and in Economics and Law only 1 percent-point.

Also these figures show however, that we should not too easily take this as proof of level playing fields. Again, on sector level we see that Dutch-born students with non-Western backgrounds more often than ethnic Dutch students are *langstudeerders*. Furthermore, the fact that Dutch-born students with non-Western backgrounds in most sectors drop out slightly less often than ethnic Dutch students in the first two years, but not more often obtain diplomas means that those who fall out do so relatively late in their studies, which is undesirable. Additional research is needed to help understand why this happens, and how this can be resolved.

Table 3 Graduation rate, % of two ethnic/migration categories, per sector

	2006 & 2007				2008 & 2009				2010 & 2011	
	% (4y)		% (6y)		% (4y)		% (6y)		% (4y)	
	nM	nW2	nM	nW2	nM	nW2	nM	nW2	nM	nW2
Nature	49	36	70	57	53	38	67	64	54	40
Health Care	61	60	74	76	59	52	71	69	57	55
Economics	42	32	63	55	45	40	61	60	38	32
Law	37	29	58	48	42	38	54	53	47	33
Beh&Soc	55	48	70	68	60	50	72	70	50	43
Lang&Cult	45	28	59	35	52	37	63	60	46	32

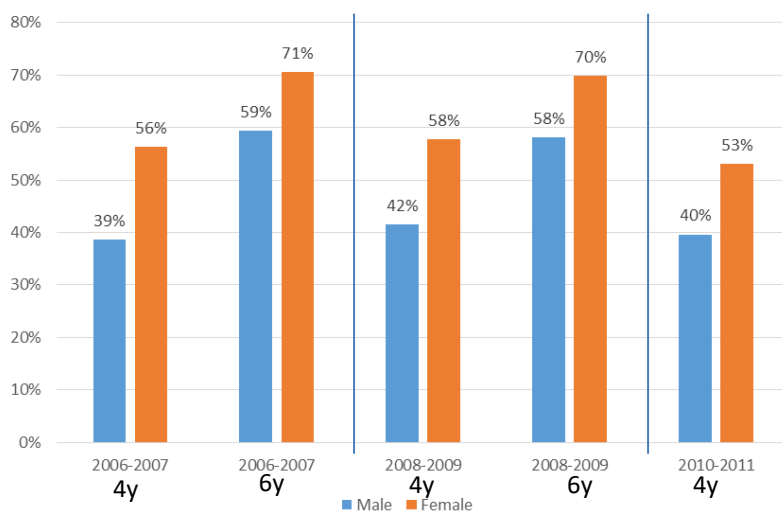
(Gray figures: gap smaller than 3%; Bold & grey fill: gap equal to/larger than 10%)

5.2 Gender

Female students more often leave obtain a diploma than male students, and male students are more often *langstudeerders* (see Figure 17). In the 2008 and 2009 cohort,

seven out of ten female students leave with a diploma within six years versus (less than) six out of ten male students. Of these women, 17% is a *langstudeerder* (12 out of the 70 percent-points), whereas of the male graduates 28% is a *langstudeerder* (16 out of the 58 percent-points).

Figure 17 Graduation rate after 4 and 6 years, % of gender category



Sectors compared

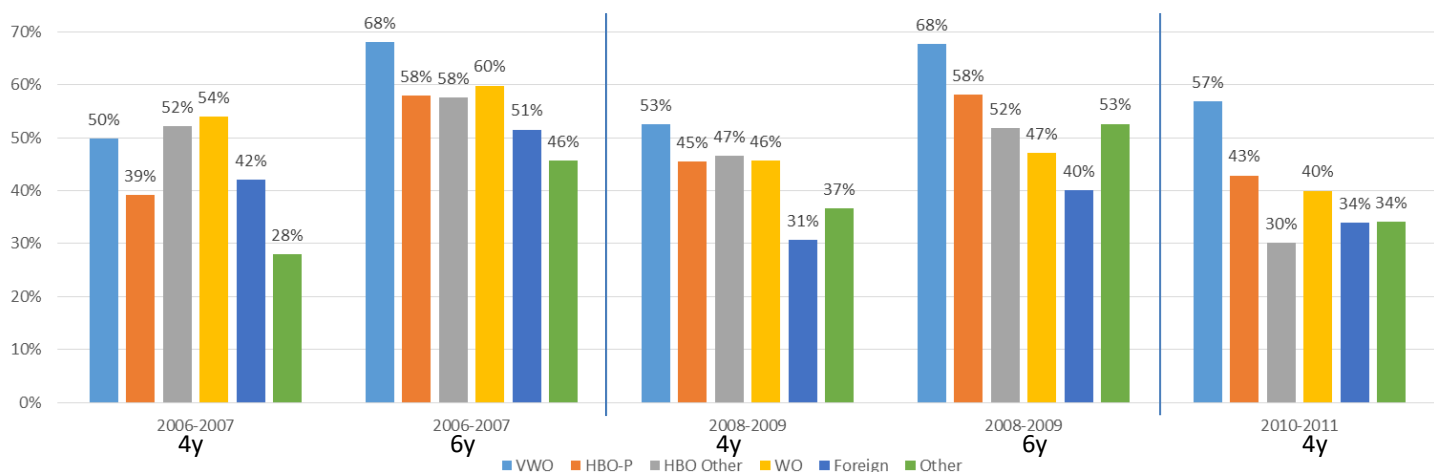
This global picture is reflected in all sectors (see Figure A. 12). In all sectors, female students more often than male students obtain a diploma. Within the 2008&2009 cohort, in Economics the gap is 17 percent-point, in Behavior & Society 15, in Nature and Health Care 10, in Law 7, and in Language & Culture 3. However, the sizes of the gaps are not very consistent over time, as in the 2006&2007 cohort the order of the sectors is different.

In some of the sectors (Health Care, Behavior & Society, Language & Culture), in the 2008&2009 cohort, the male students more often are *langstudeerders* than the female students, whereas in other sectors (Nature, Economics, Law), the share of *langstudeerders* is roughly equal. Again, this picture is different for the 2006&2007 cohort.

5.3 Highest pre-VU education

In line with the picture sketched for the dropout rates, also the graduation rates show that having a VWO diploma forms the best preparation for the university. VWO students not only drop out more often in the first two years, in the end, they also obtain a diploma more often than students who came via other educational tracks (Figure 18). Students with a HBO-P level occupy a second position, and students with HBO-Other the third position. Students with HBO-Other levels least often are *langstudeerders*.

Figure 18 Graduation after 4 and 6 years, % of education category



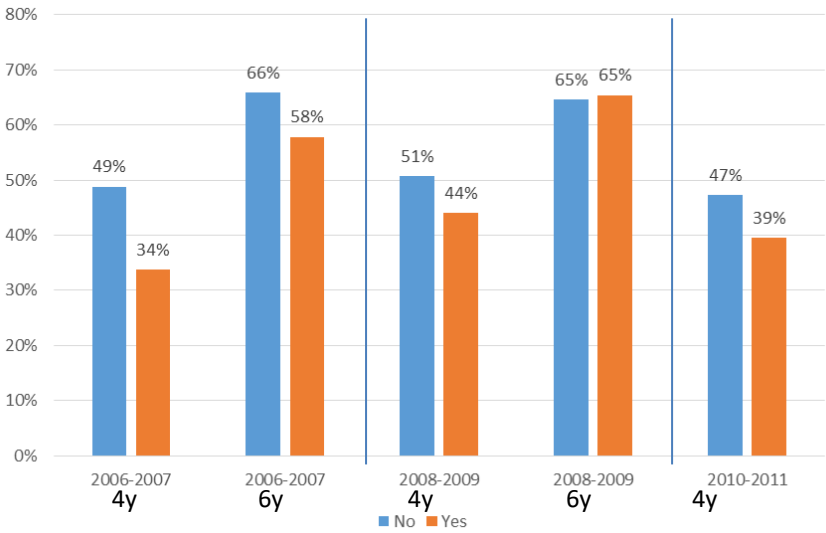
Sectors compared

Not all sectors reflect the same picture (see Figure A. 13). Some sectors (Behavior & Society, Language & Culture, Nature, Law) mirror the VU-wide picture that the VWO forms the best preparation, followed by HBO-P and HBO-Other. However, as we saw in the dropout chapter already, HBO-P forms a better predictor to obtain a diploma than having a VWO degree. In the Health Care sector, students who come from other universities have the highest graduation rates. This is probably a result of the selection procedures in the Medical programs. When students switch from other universities to the VU Health Care sector, this is most likely not an indication of VU Health Care being their second choice, rather an indication of persistence in their study choice (as they probably did not manage to get access in a previous selection round).

5.4 Refugee status (being born a refugee country)

Different than in the 2006&2007 cohort, in the 2008&2009 cohort, the graduation rate of students born in one of the four 'refugee countries' is similar to the graduation rate of the rest of the students (see Figure 19). Hopefully this reflects a positive trend. However, students from refugee countries are slightly more often *langstudeerder*.

Figure 19 Graduation rate, % per category 'not born/born in refugee country'



6. Conclusions

One of the main conclusions is that there is no homogeneous institution. This means that comparisons between institutions should be done with great care. Sectors hugely differ in composition, drop out and graduation rates, and also gaps between groups of students vary between sectors. Apparently, the meso-institutional context matters. In order to understand differences between institutions and mechanisms that contribute to (or hamper) study success, we should zoom in on the level of the sectors. Probably it makes even more sense to zoom in on the course programs, the level where educational arrangements take shape.

Nevertheless, for the VU, we do observe some institution-wide trends. Firstly, for all sectors, female students more often than male students obtain a diploma, and they less often are *langstudeerders*.

Secondly, in general, having a VWO education level seems to be the best preparation for succeeding at the university. Students who come to the VU via alternative educational tracks, such as HBO-P and HBO-Other less often obtain diplomas than students who follow the 'direct' route via VWO. However, in some domains the courses seem to connect to a HBO level at least as good, or even better. In the Economics sector, for example, the students from HBO-P outperform the students who come from VWO.

Thirdly, the general idea that students with immigrant backgrounds lag behind ethnic Dutch students is supported by the VU data. However, the data calls for nuance in various ways. In the first place, for many sectors, the gap in graduation rates between the ethnic categories is limited. Furthermore, thinking in large ethnic categories appears to be too crude. Among the bicultural students, the Dutch-born (second-generation) are doing better than the foreign-born (first-generation) students. In fact, Dutch-born students with 'non-Western backgrounds' of the combined cohort 2008&2009 roughly equally often obtain diplomas as the ethnic Dutch students in all sectors. Nevertheless, we should be careful to interpret this as the university providing a level playing field, or to regard all students as players with equal chances. For example, these Dutch-born students with 'non-Western' backgrounds more often are *langstudeerders*, and if they fall out, this occurs more often in a later phase of their study (which is undesirable).

More research is required to understand why gaps occur, and why gaps differ between sectors and cohorts. We need to further explore what mechanisms underlie these gaps, and how come that in some contexts these mechanisms do not affect the outcome. In-depth analysis, quantitative and qualitative, on the meso-level is needed to understand fluctuations between and within sectors and to draft and implement interventions that level the academic playing field.

For more recommendations, see the final document with the synthesis of all three institutional reports of the VU, Erasmus and Leiden (Slotman & Wolff 2017).

Appendix A1 – Enrolment per sector

Figure A. 1 Enrolling first-year BA students, totals per sector (2006-2015)

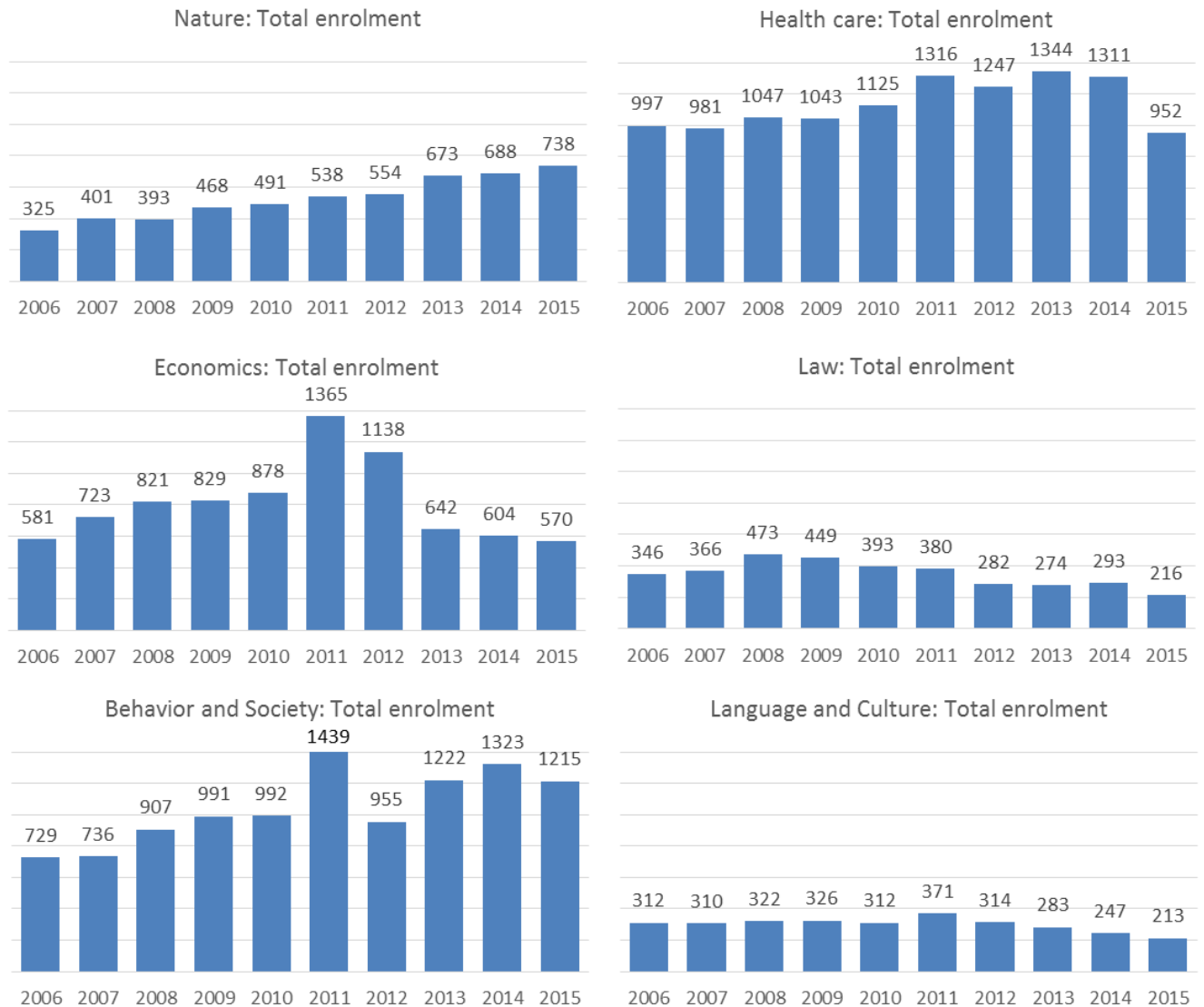


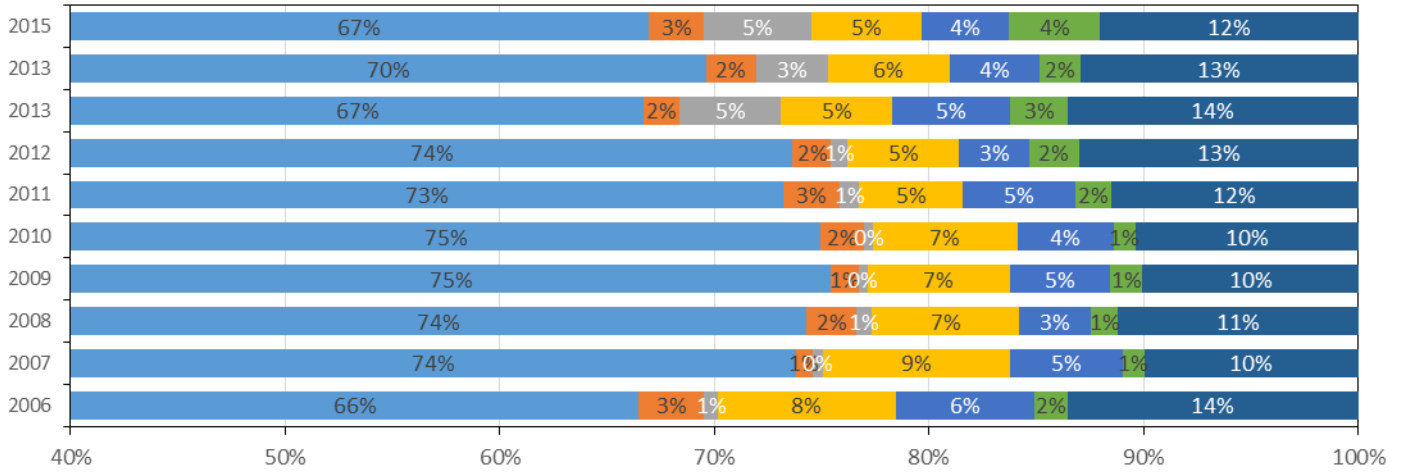
Figure A. 2 Ethnic background of enrolling students, per sector (2006-2015)



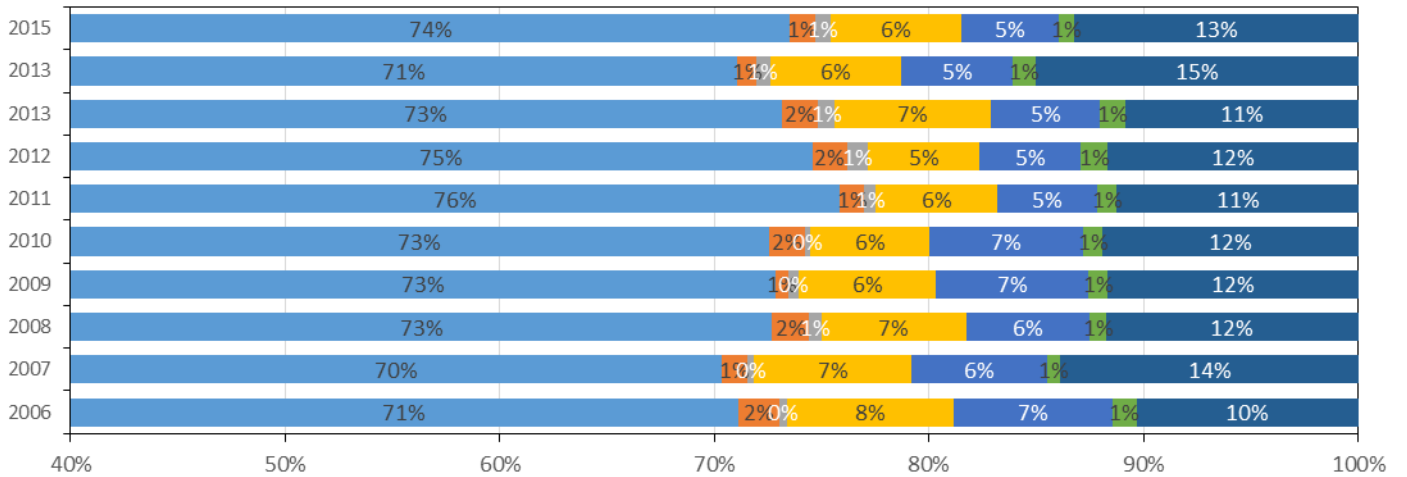
Figure A. 3 Ethnic and migration background of enrolling students, per sector (2006-2015)

■ non-Migr ■ W/1/NL ■ W/1/For ■ W/2 ■ nW/1/NL ■ nW/1/For ■ nW/2

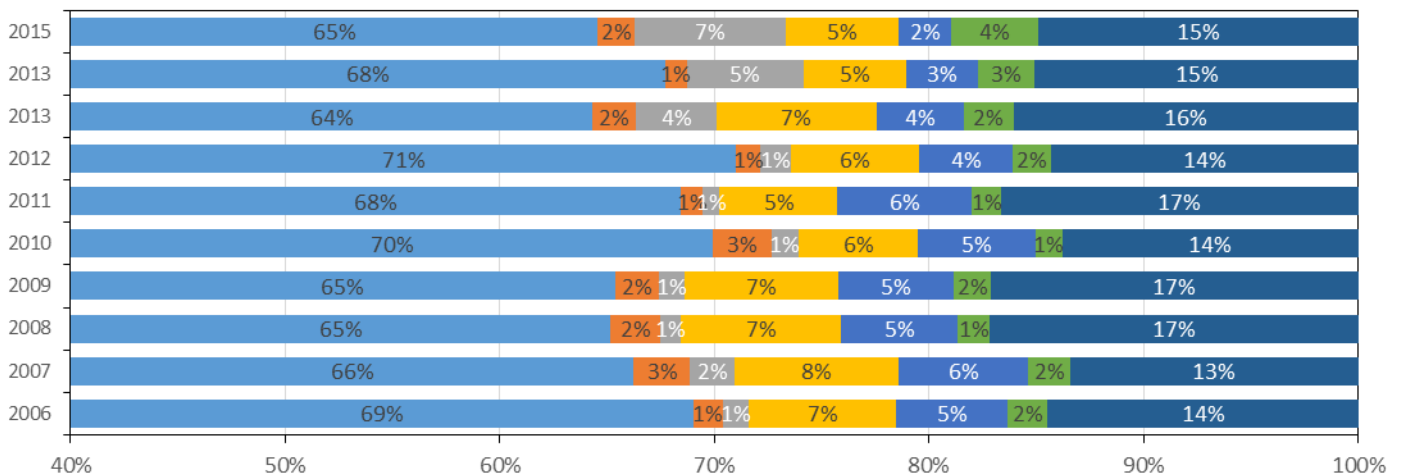
Nature (note: x-axis starts at 40%)



Health care (note: x-axis starts at 40%)

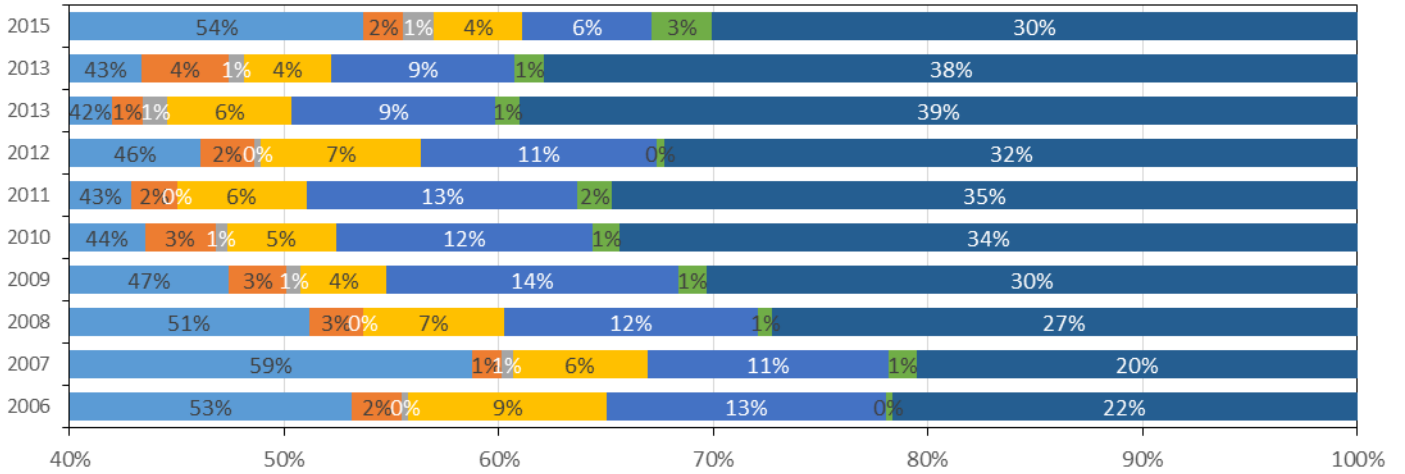


Economics (note: x-axis starts at 40%)

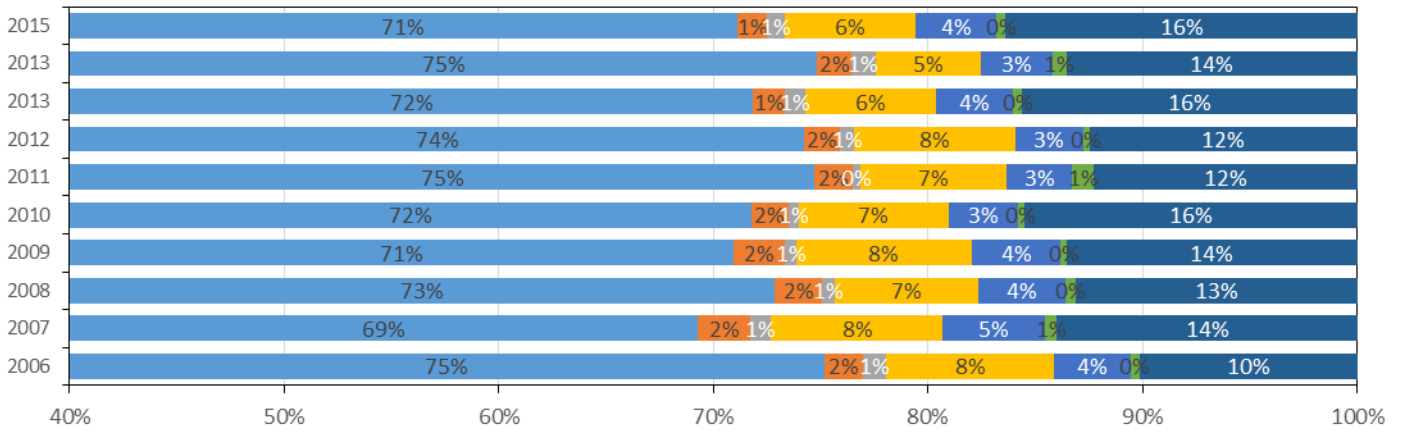


■ non-Migr ■ W/1/NL ■ W/1/For ■ W/2 ■ nW/1/NL ■ nW/1/For ■ nW/2

Law (note: x-axis starts at 40%)



Behavior and Society (note: x-axis starts at 40%)



Language and Culture (note: x-axis starts at 40%)

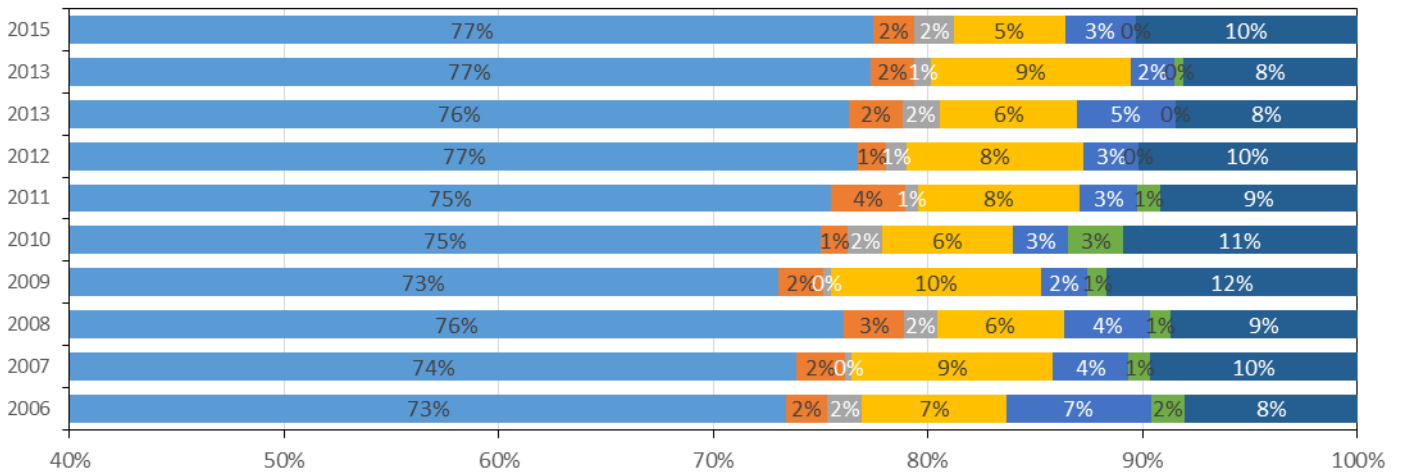


Figure A. 4 Gender of enrolling students, per sector (2006-2015)

■ Male ■ Female

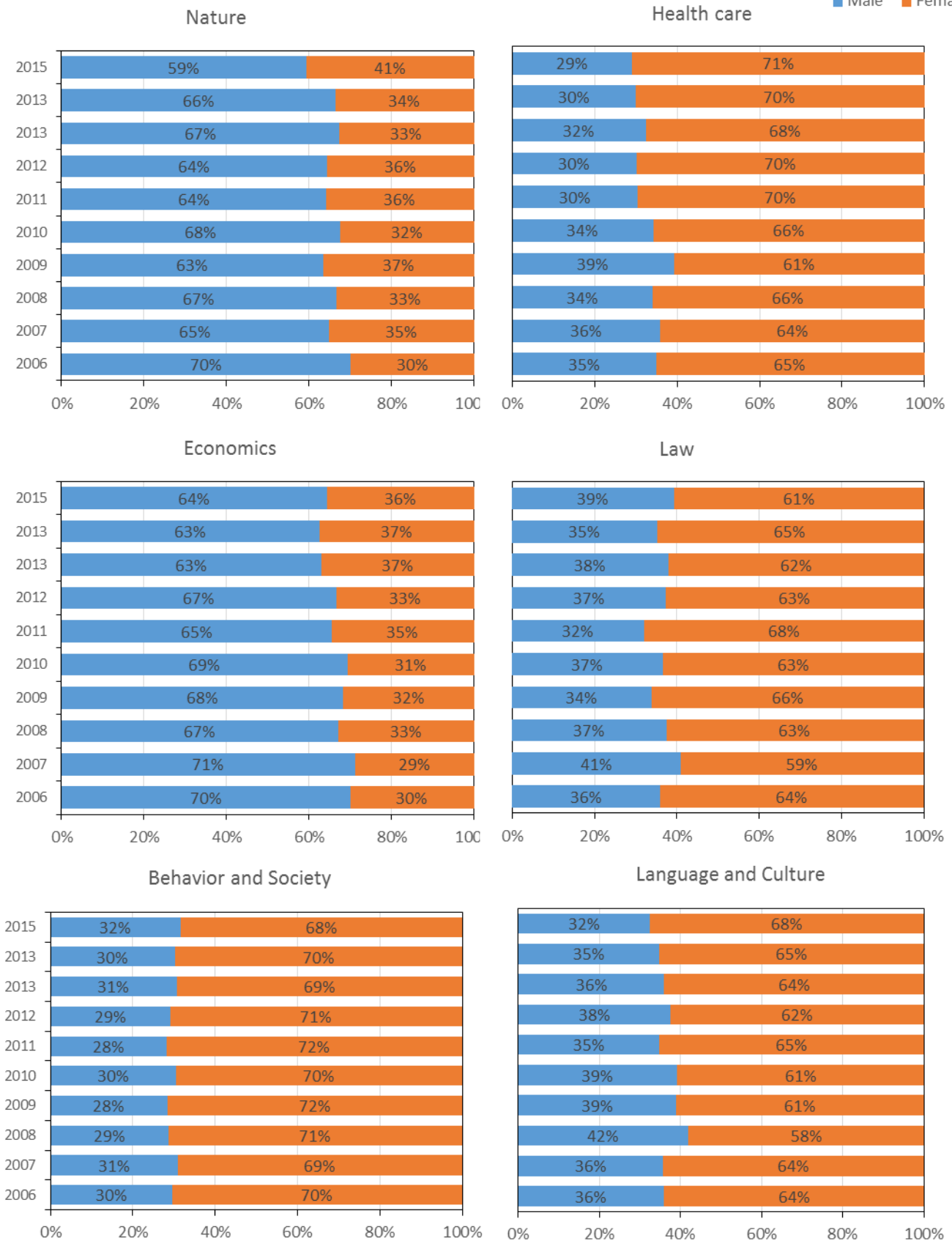
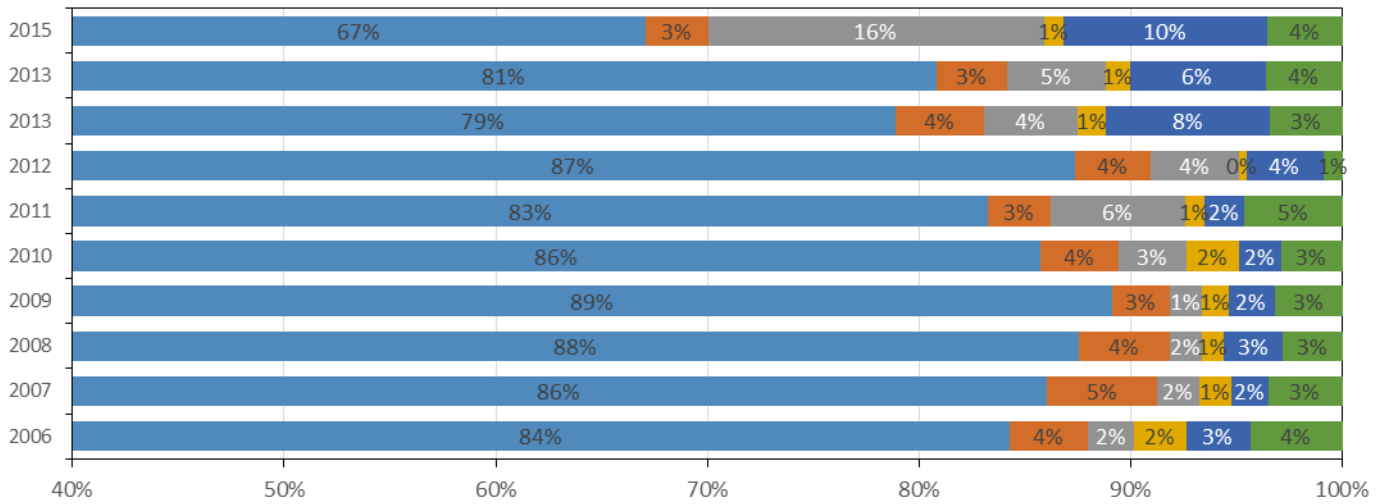


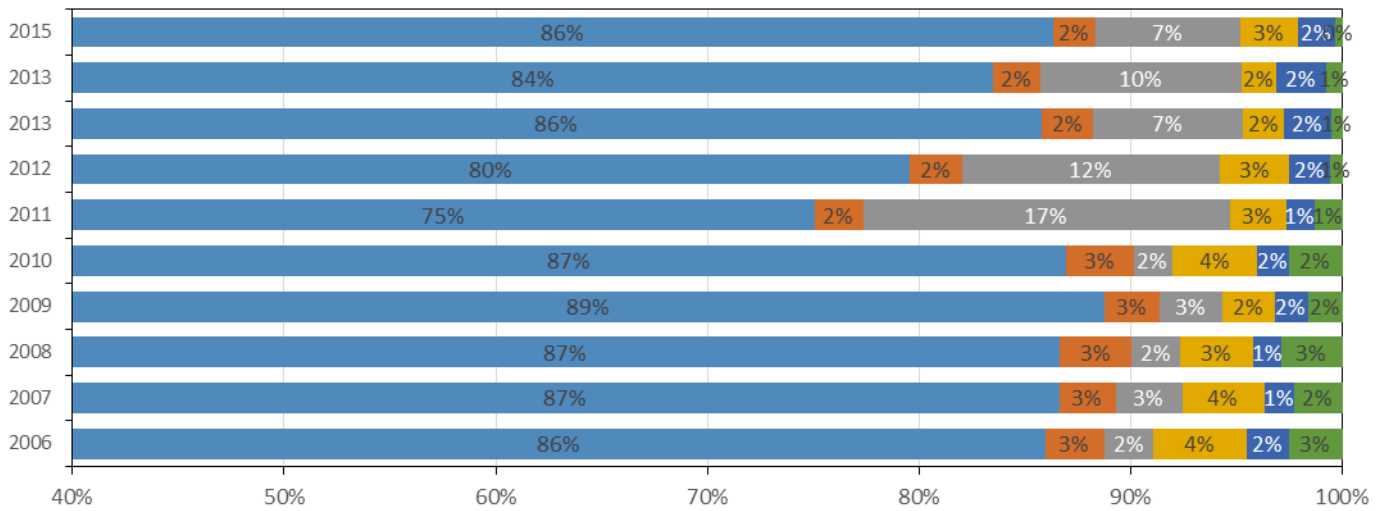
Figure A. 5 Pre-VU education of enrolling students, per sector (2006-2015)

■ VWO ■ HBO-P ■ HBO Other ■ University ■ Foreign ■ Other

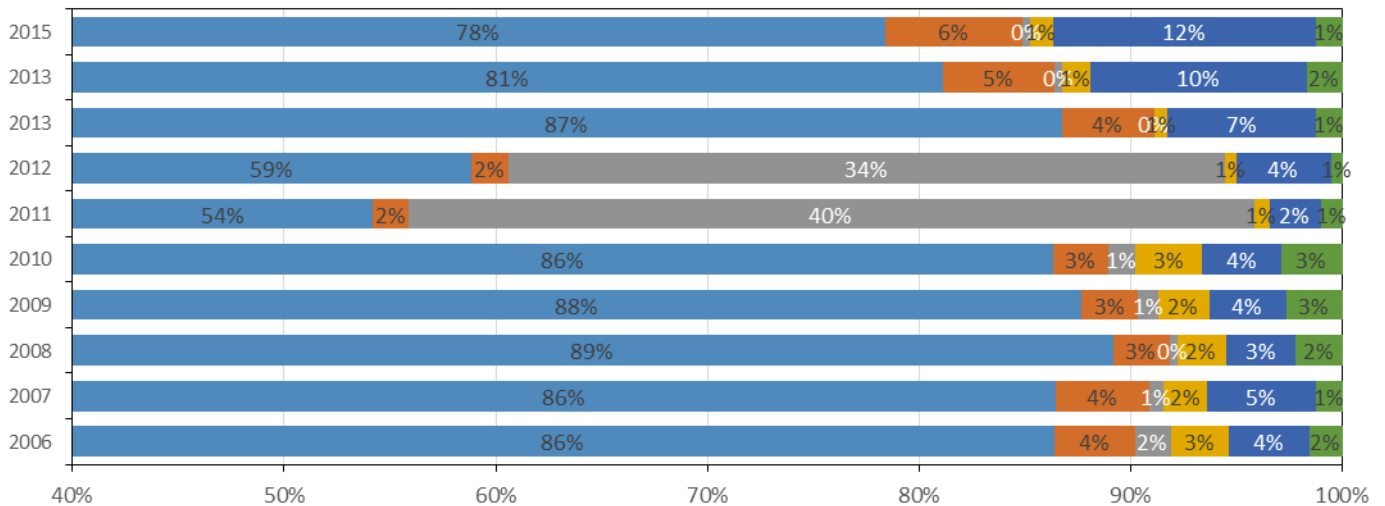
Nature (note: x-axis starts at 40%)



Health care (note: x-axis starts at 40%)

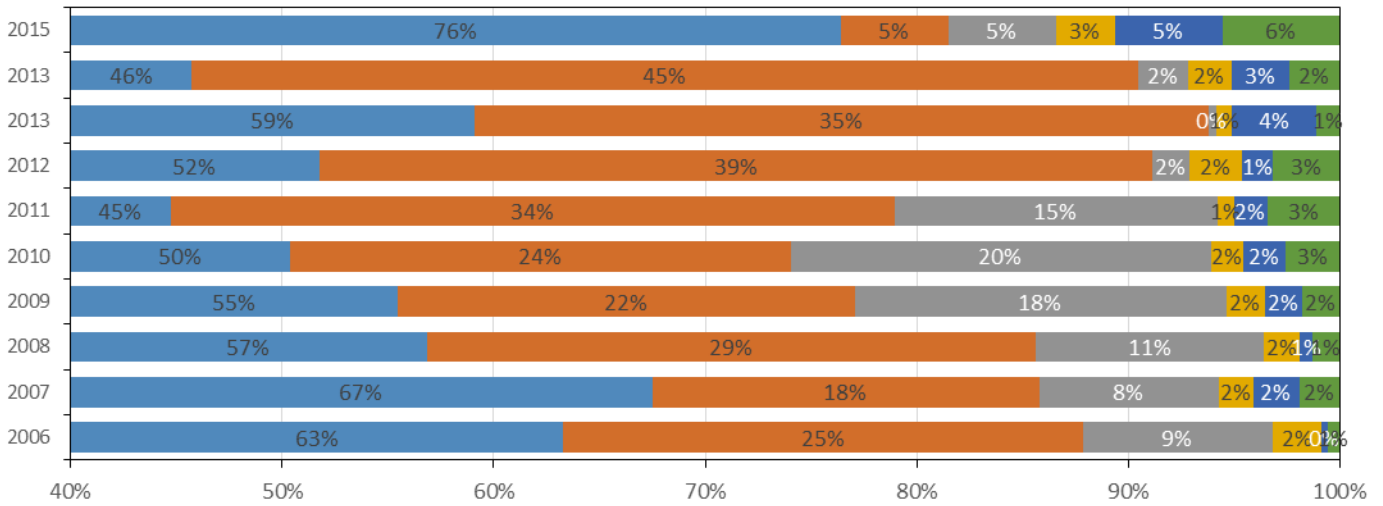


Economics (note: x-axis starts at 40%)

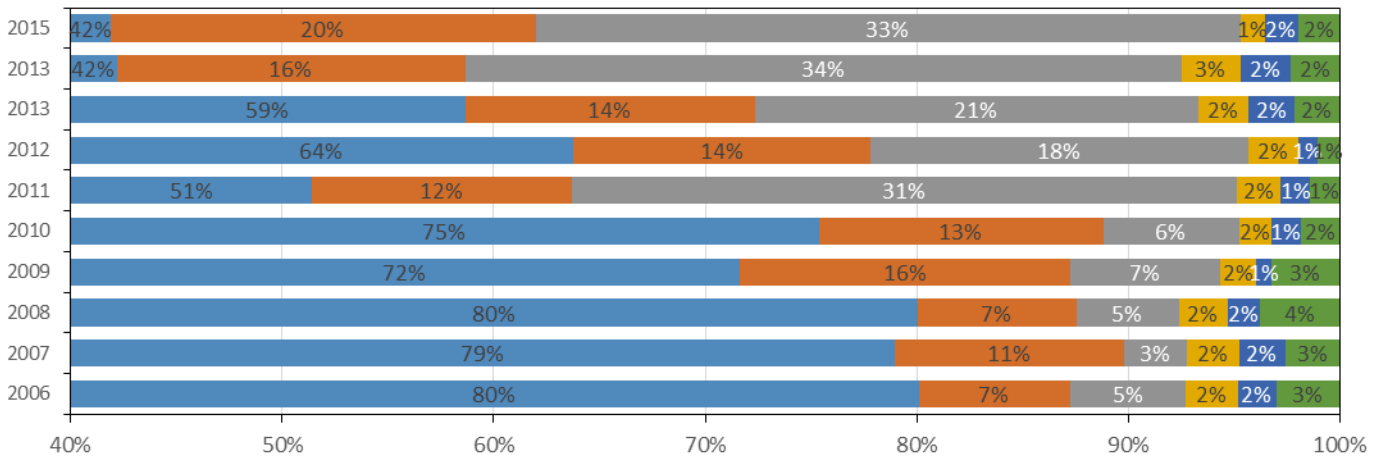


■ VWO ■ HBO-P ■ HBO Other ■ University ■ Foreign ■ Other

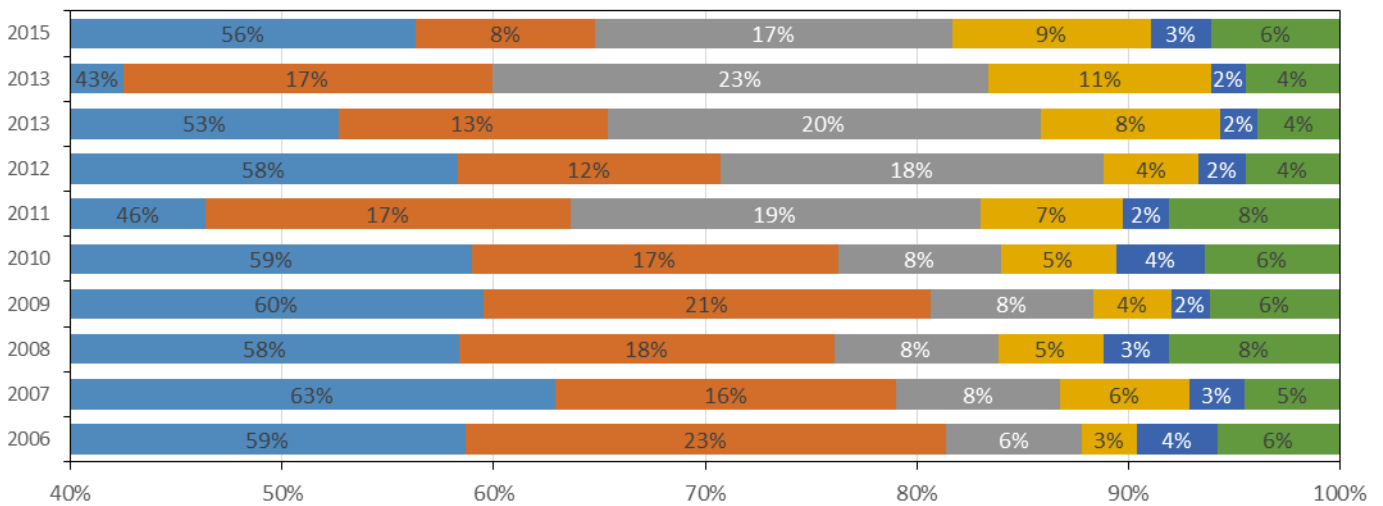
Law (note: x-axis starts at 40%)



Behavior and Society (note: x-axis starts at 40%)



Language and Culture (note: x-axis starts at 40%)



Appendix A2 – Dropout after 2 years

Figure A. 6 Dropout, % per ethnic category, per sector



Figure A. 7 Dropout, % per ethnic/migration category, per sector

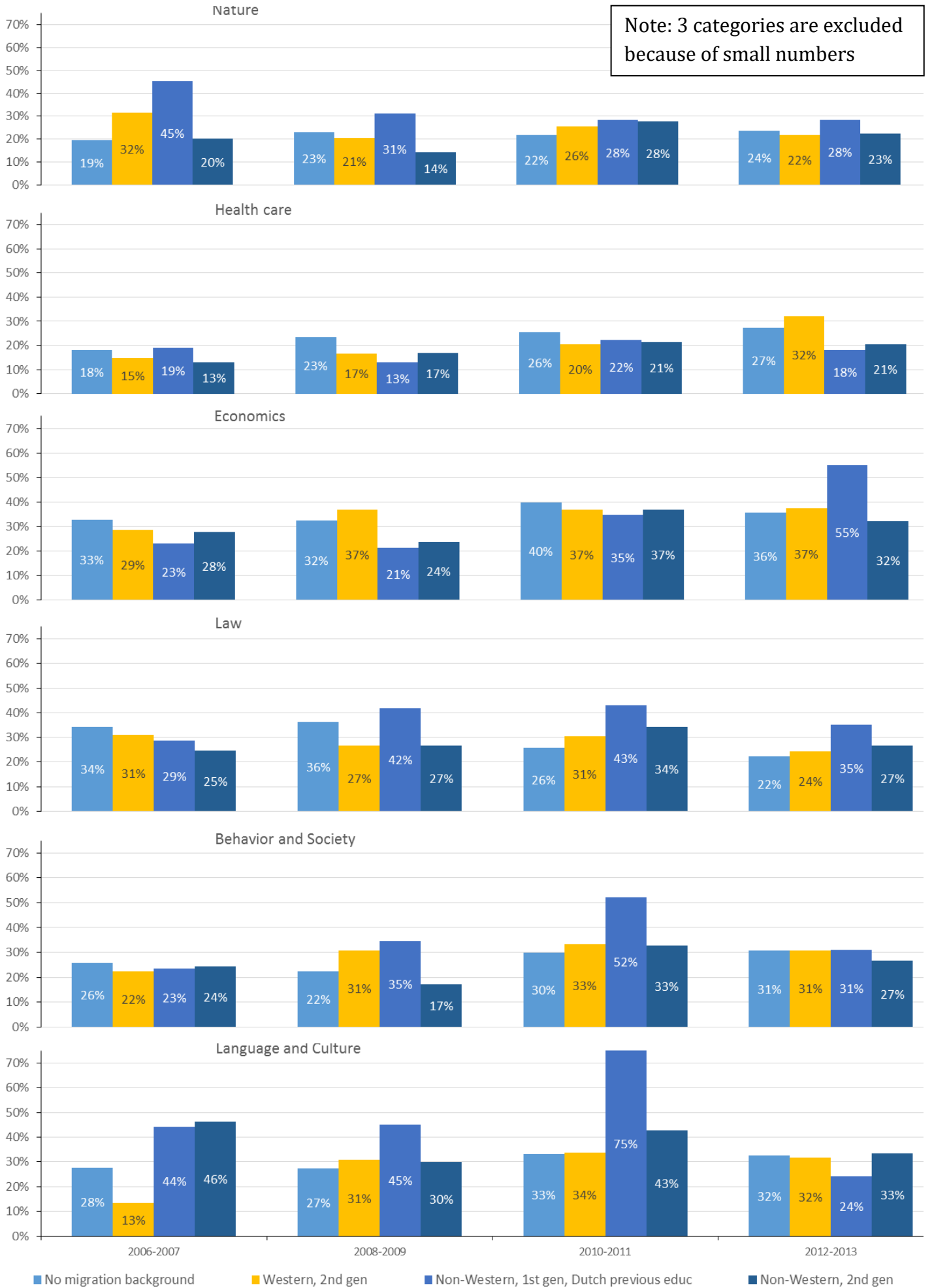


Figure A. 8 Dropout, % per gender-category, per sector

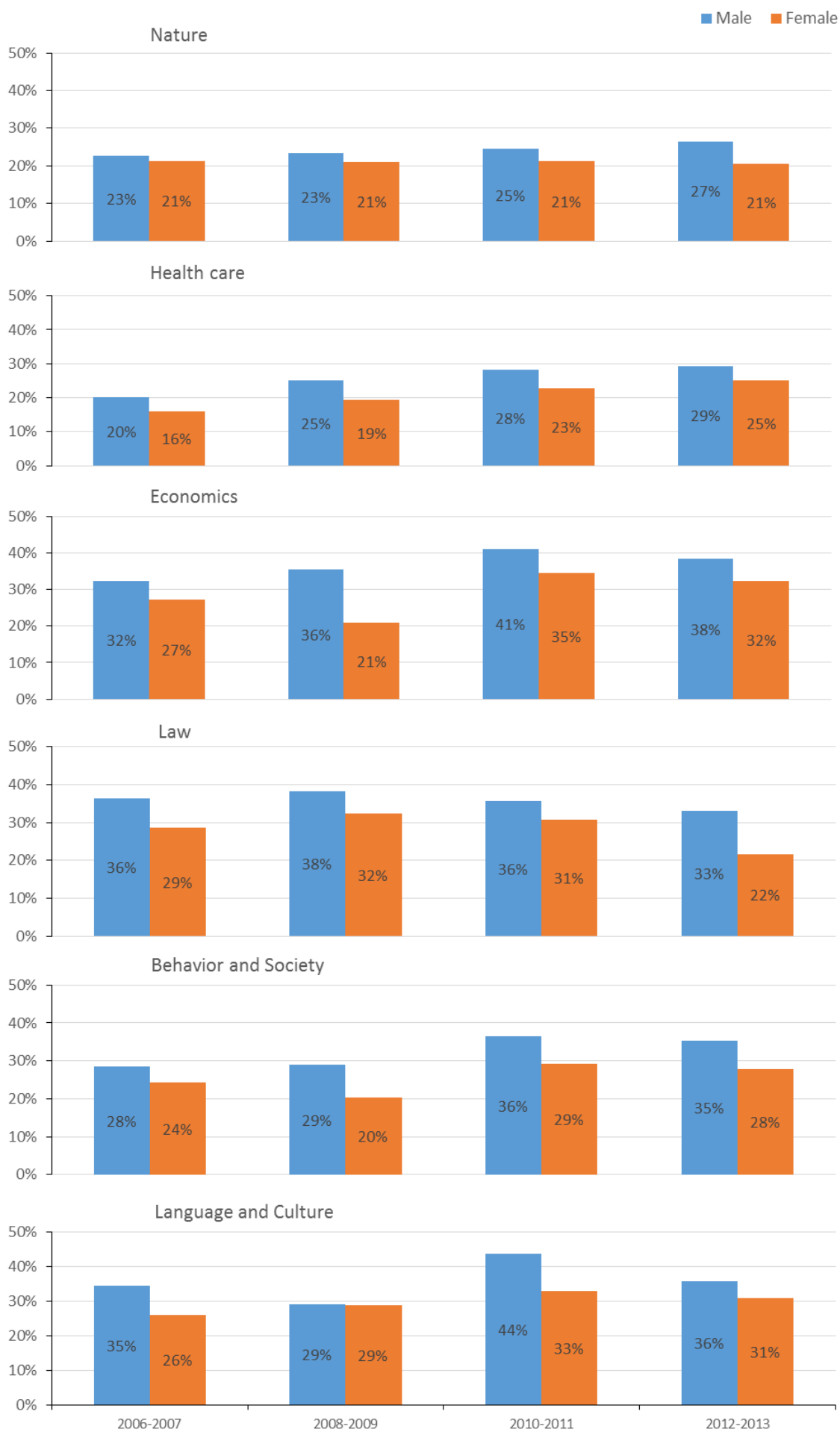
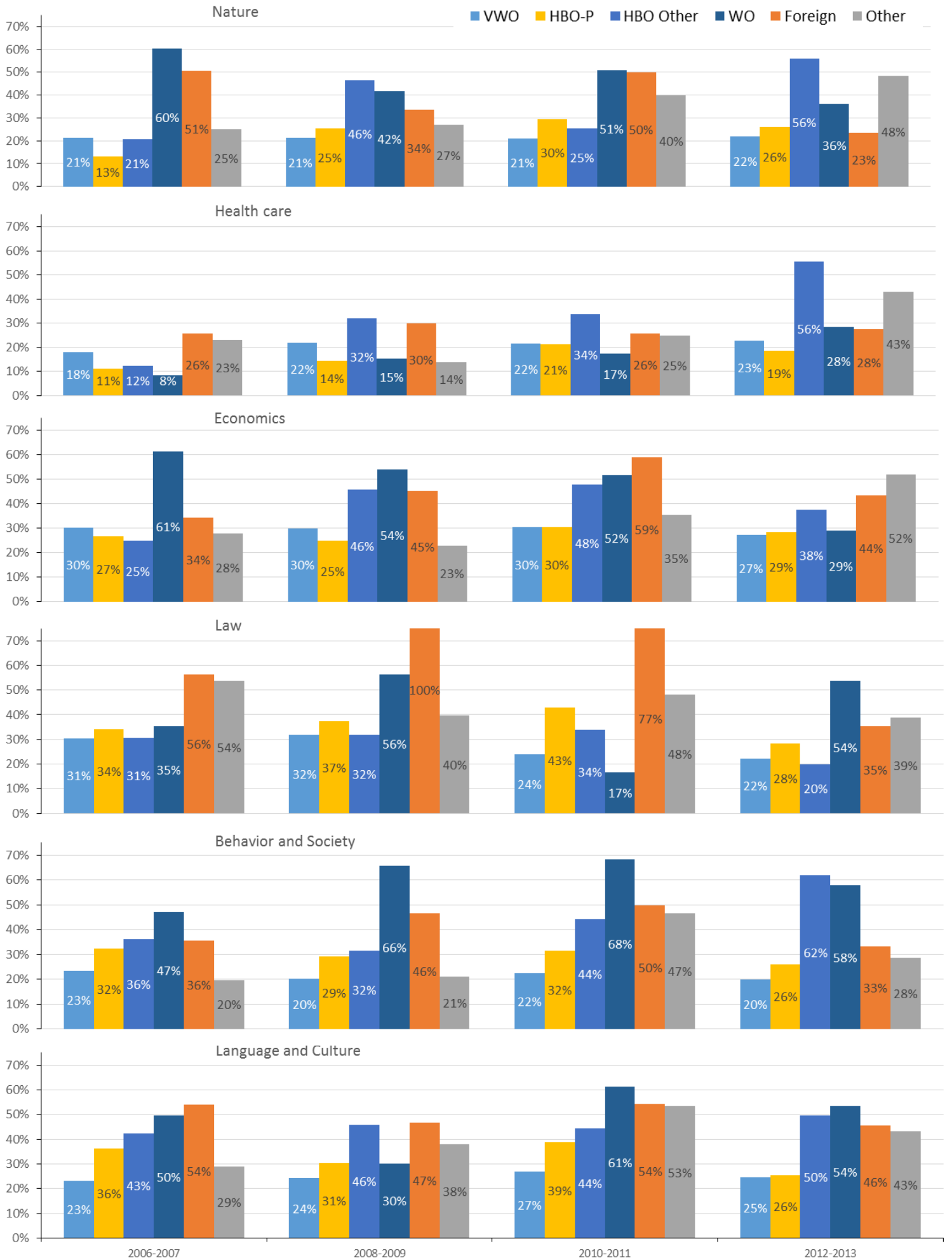


Figure A. 9 Dropout, % per pre-VU education category, per sector



Appendix A3 – Graduation rates

Figure A. 10 Graduation rates after 4 and 6 years, % of ethnic category, per sector

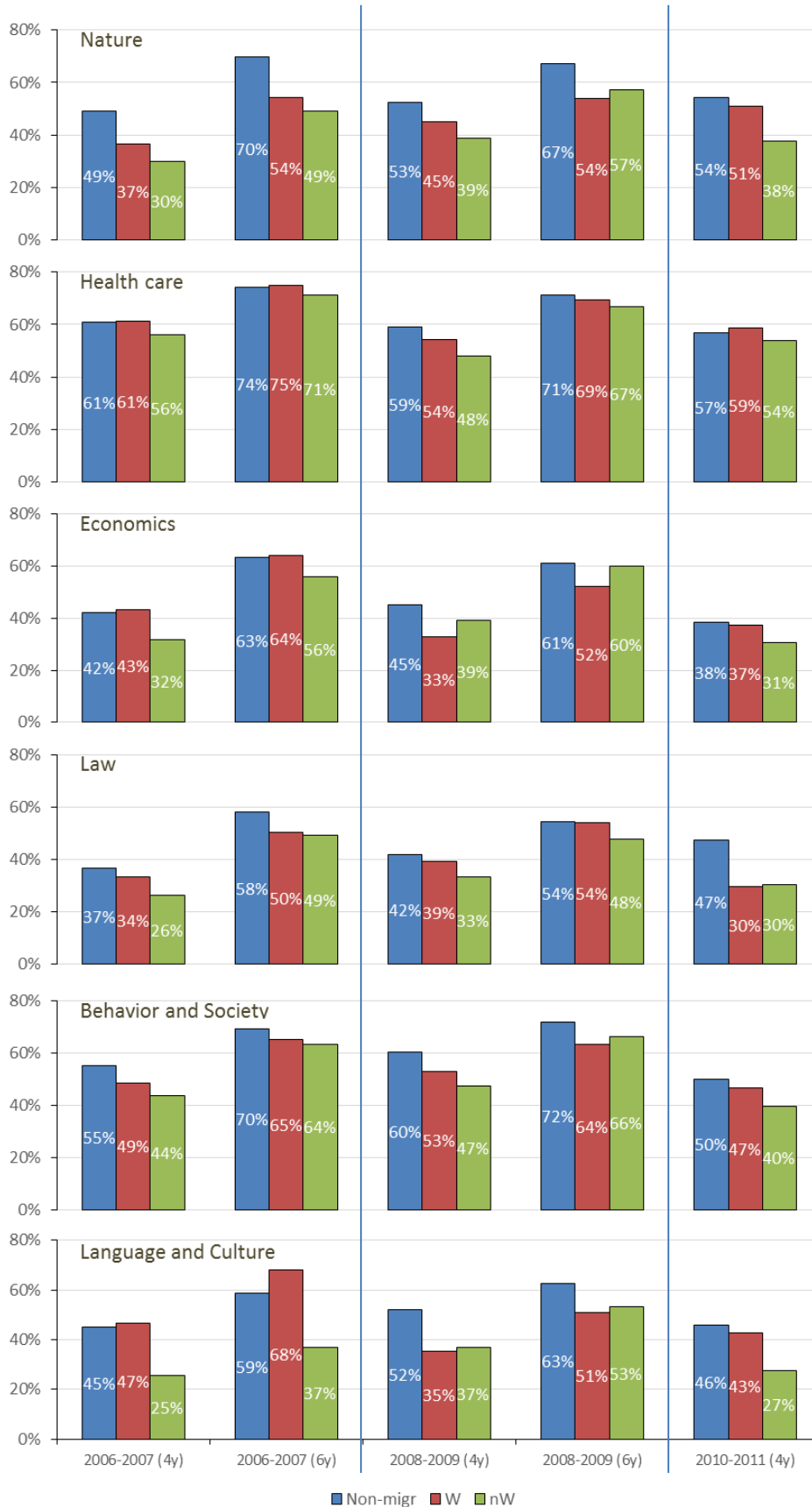


Figure A. 11 Graduation rates after 4 and 6 years, % of ethnic/migration category, per sector

Note: 3 categories are excluded because of small numbers

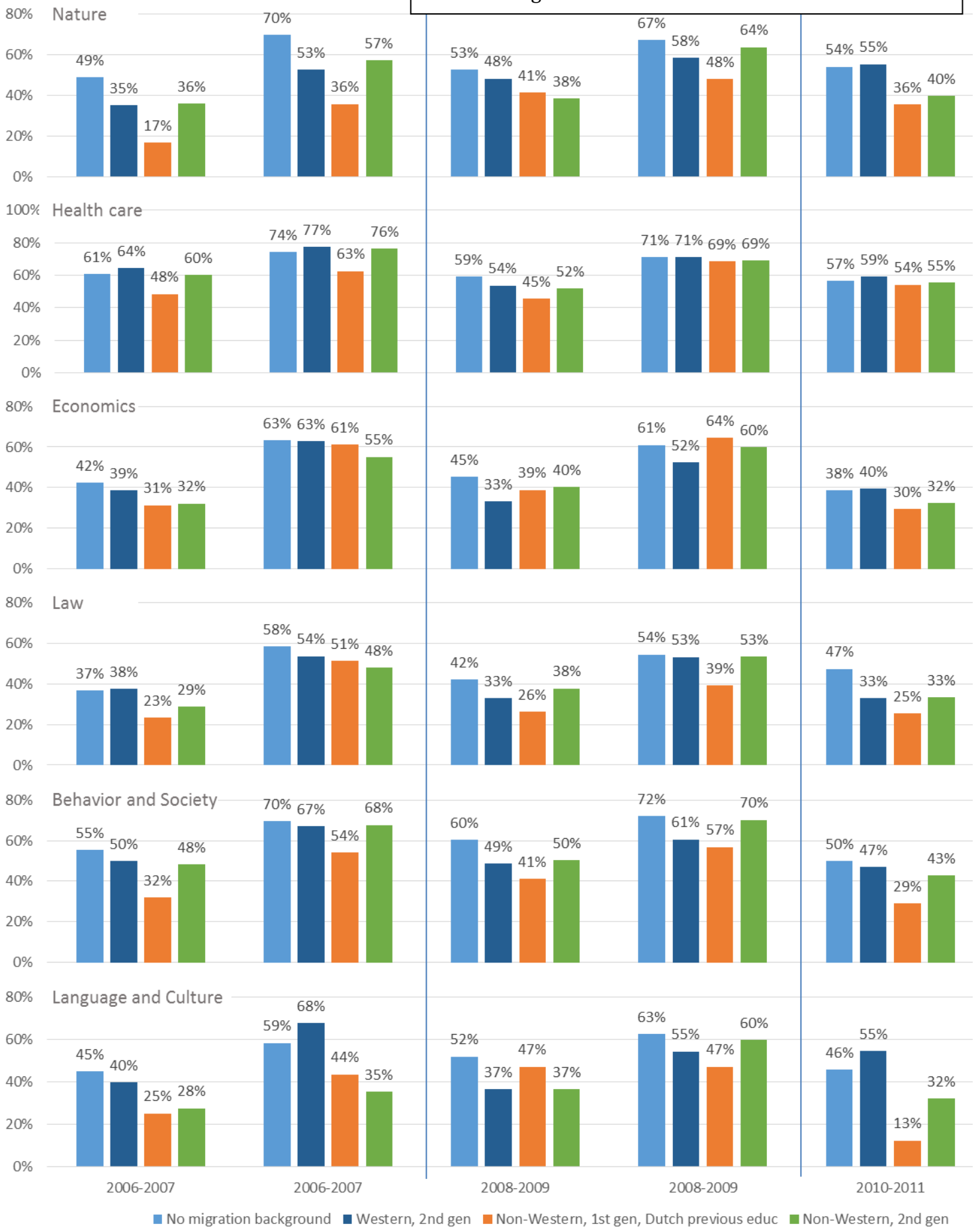


Figure A. 12 Graduation rates after 4 and 6 years, % of gender category, per sector

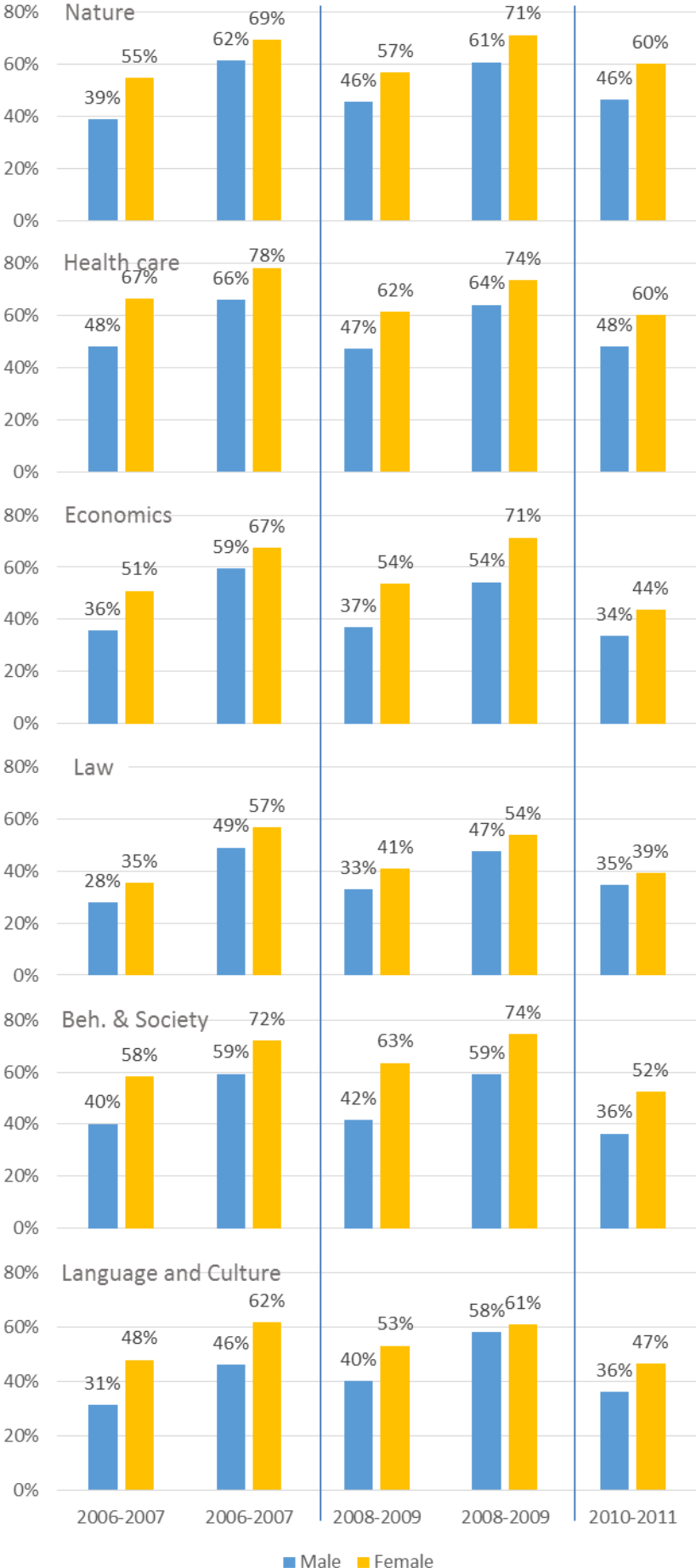


Figure A. 13 Graduation rates after 4 and 6 years, % of education category, per sector



Endnotes

¹ Meeuwisse, Marieke, Ad Scheepers, Karen Stegers-Jager and Rick Wolff (2017)¹. Diversity in facts and figures. Enrolment, dropout and Graduation of the diverse EUR-student body 2008-2015. Rotterdam: Erasmus University.

² The categories for this variable used in the reports of Erasmus and Leiden are slightly different. In these reports, students born in the Netherlands (ethnic majority students and students of the second generation) with foreign pre-university education are left out of the analyses. Because these excluded students are only very few (around one per cent), this does not largely influence the presented figures. For reasons of completeness, it is recommendable to use the categories of this VU-report – which include 100% of the students – in all future reporting.

³ That some categorized as ‘international students’ also followed Dutch previous education tracks, is caused by the fact that the category ‘international students’ is based on the previous education *before entering higher education*, and that we here report on the *previous education before the VU*. So, before they entered higher education these students followed education abroad, but then also attended Dutch education before coming to the VU. For next years, we recommend to create the category ‘international students’, using ‘previous education’ instead of ‘previous education before entering higher education’. See also **Error! Reference source not found.**