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PROJECTIONS OF DEMAND FOR FULL TIME THIRD LEVEL EDUCATION, 2014 - 2028

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Introduction

This document provides the latest set of projections of demand for full time third level education for the period 2014-2028. It should be noted that these are projections of likely demand for Department of Education aided institutions only. Actual enrolments in each year do not always equate with projected demand, as demand is constantly fluctuating in response to the changing economic situation and resulting shifts in students' options and preferences. A separate release on first and second level projections is available. This release discusses third level full time projections only.

Migration is a factor when producing third level projections. Trends in migration of children of school going age will have a cumulative effect on the underlying population available to take up third level education. As these projections follow directly from the recently published first and second level projections, the third level projections reflect the assumptions on migration that were made in the first and second level projections. The median assumption, M2, is chosen as the most likely.

These projections cover the period up as far as 2028. For third level projections this timeframe is chosen as the future entrants to third level over the next 15 years have already been born and so fertility factors do not need to be taken into account when projecting entrants to third level. The projected enrolments therefore vary only as a result of differing migration assumptions.

The projections show that demand for third level full time education is expected to continue to rise every year over the period 2014-2028, reaching 211,709 by 2028, an increase of over 46,500 on the estimated 2013 enrolment levels.

Overview of Methodology

The main proportion of entrants to third level education each year come directly from the second level system, with a further proportion entering third level within a few years of leaving second level education. A data matching exercise is carried out to arrive at an accurate transfer rate from second to third level education, for those students that had not yet reached the mature student age (those aged 23 or more prior to entering a full time undergraduate course).

Separately, mature entrants are calculated as a proportion of the underlying projected population of those aged 23 and over.

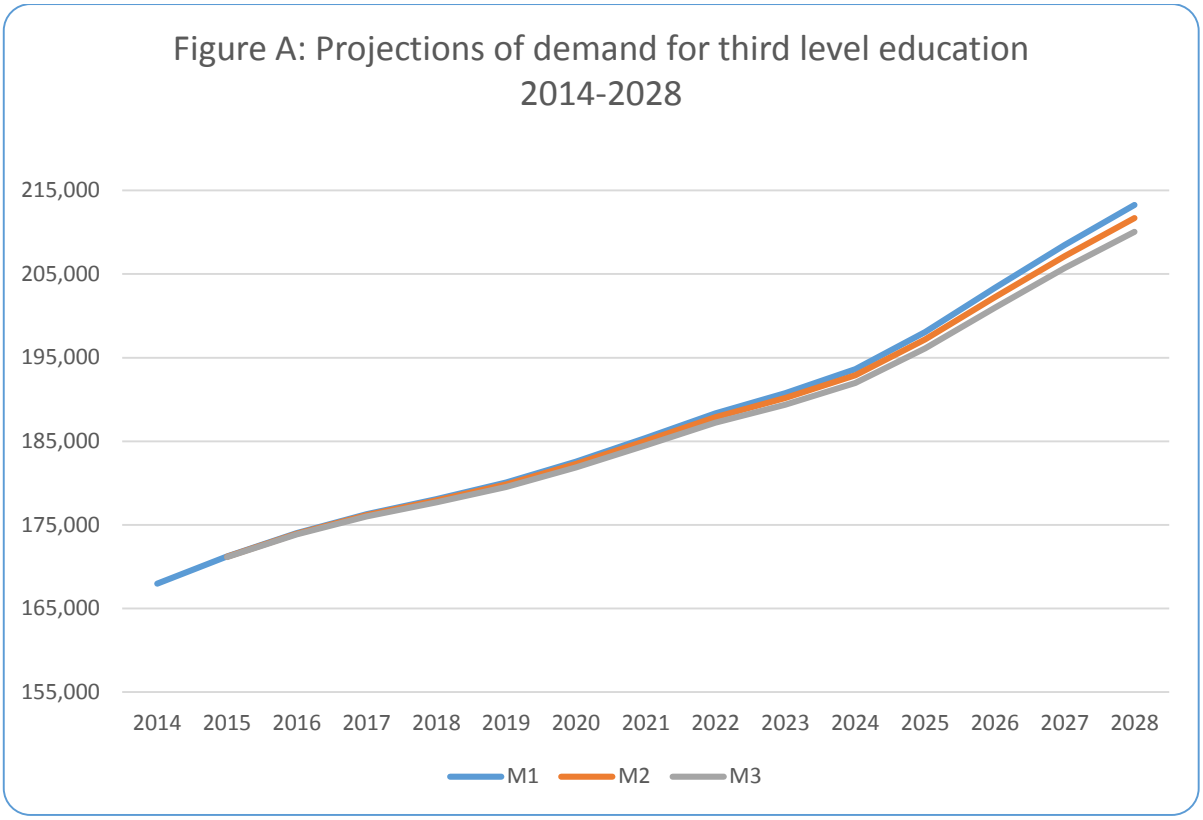
International entrants and entrants from other DES aided institutions are also included in the model, although these have a smaller impact than direct and mature entrants. These cohorts are projected using recent trend data to make an assumption about the likely figures going forward.

Projected Demand for Full Time DES Aided Places at Third Level, 2013-2028

An estimate of 2013 enrolment, and the projected demand for full time third level education over the period 2014-2028 is shown in Table 1 below. The migration assumptions refer to the migration assumptions chosen for the first and second level projections, which then feed into the third level projections. Migration of the third level student population is not explicitly dealt with, as emigration is dealt with under the calculation of the ROUT, and immigration is considered under the assumptions made on international student entrants.

Table 1: Projections of Full Time Demand for Education in DES-Aided Third Level Institutions, 2013-2028

	M1	M2	M3
2013	165152 (*estimated enrolment*)		
2014	167,991		
2015	171221	171185	171,149
2016	174018	173945	173,855
2017	176282	176165	176,006
2018	178099	177922	177,691
2019	180060	179840	179,522
2020	182547	182277	181,853
2021	185388	185057	184,520
2022	188325	187881	187,222
2023	190765	190181	189,391
2024	193628	192886	191,959
2025	198075	197165	196,093
2026	203328	202223	200,981
2027	208482	207151	205,703
2028	213254	211709	210,055



Key points to note:

-Focussing on the immediate three years ahead, full time enrolment is projected to increase by approximately 8,800 by 2016, under the preferred assumption M2.

-Beyond 2016, under all migration scenarios, the demand for third level full time education is projected to increase to between 210,000 and 213,000 by 2028, depending on the migration assumption chosen. This is a direct result of increases in births in recent years, and of the relevant underlying populations at first and second level.

-Under the median preferred migration assumption, M2, enrolments will reach 211,709 by 2028.

-As the projections of demand for third level education cover the next 15 years only, they vary only as a result of migration assumptions, and fertility is not a factor. Therefore the range of projected enrolments is much narrower than that shown for the projections at first and second level.

Projection of Entrants to Third Level Education

The projection of entrants to third level education involves three separate components:

1) Calculation of a transfer rate from second to third level education.
2) Projection of numbers of mature entrants.
3) Projection of numbers of international students.

1) Calculation of a Transfer Rate from Second to Third Level

In order to arrive at an accurate rate of transfer of non-mature students from second to third level, a data matching exercise was conducted to estimate the proportion of final year second level students that transfer to third level in the ensuing 5 years.

The data matching exercise was conducted using Higher Education Authority 2012\2013 Student Records System entrants, and second level final year data from the Department of Education and Skills post primary pupils' database for the 5 academic years previous to 2012\2013. A small adjustment is also made for new entrants with no PPSN whose source was from second level, but could not be matched by PPSN to the post primary pupils' data.

The results of the matching exercise are as follows:

- **45.55%** of the 2011/2012 final year second level cohort were new entrants to third level in 2012/2013

-**11.52%** of the 2010/2011 final year second level cohort were new entrants to third level in 2012/2013

-**3.46%** of the 2009/2010 final year second level cohort were new entrants to third level in 2012/2013

- **1.66%** of the 2008/2009 final year second level cohort were new entrants to third level in 2012/2013

- **1.02%** of the 2007/2008 final year second level cohort were new entrants to third level in 2012/2013

Adding these results together implies that, if the same trends were to continue for future years, **64.2%** of any final year second level cohort will transfer to a HEA third level institution before reaching the mature student age.

Given the underlying demographics, even if this rate is to remain constant into the future, increases in demand to third level education will be seen. The overall numbers enrolled in second level education are projected to rise from 333,213 in 2013 to a peak of almost 405,000 in 2025 under preferred scenario M2F1, and this increase will therefore lead to increased domestic demand coming from the second level sector for third level education.

An extra adjustment is also made to take account of other public third level institutions that are aided by the Department of Education and Skills but are not on the HEA's Student Records System. This adjustment is of the order of 0.5%, which gives

a total estimated transfer rate from second to third level of approximately 64.7% in 2012/2013. In other words, 64.7% of final year second level students in any given year are likely to make the transfer to publicly-aided third level institutions before reaching the mature student age of 23.

For the purposes of the projections, the path taken to third level education is irrelevant when calculating the transfer rate from second to third level. Students who do not make the transfer directly to third level may repeat the Leaving Certificate to get more points, pursue a Post-Leaving Certificate course, enter employment, be unemployed for a period of time, or travel abroad for a "gap year" before entering the third level system. Whichever path is taken to third level, this data matching exercise ensures that students who enter third level before the age of 23 after a period of other activity, are included in the transfer rate for projections purposes.

Mature Entrants

A significant proportion of entrants into the third level sector are mature entrants. These are entrants which are over the age of 23. Applicants over the age of 23 are entitled to be assessed for financial supports independently of their parents. The data shows a surge in entrants to third level at the age of 23 and 24, with a gradual levelling off after those ages.

In recent years the numbers of mature students were on the increase, possibly as the lack of employment opportunities in some sectors has made returning to third level education a more attractive prospect, and because unemployment supports allow for a return to education while retaining benefits. The most recent data available suggests that this increase has now levelled off, and given that the surge was most likely in response to a particular economic shock, it is assumed that the most likely scenario going forward will be a retention of mature entrants at the same proportion of the underlying total population.

International Students

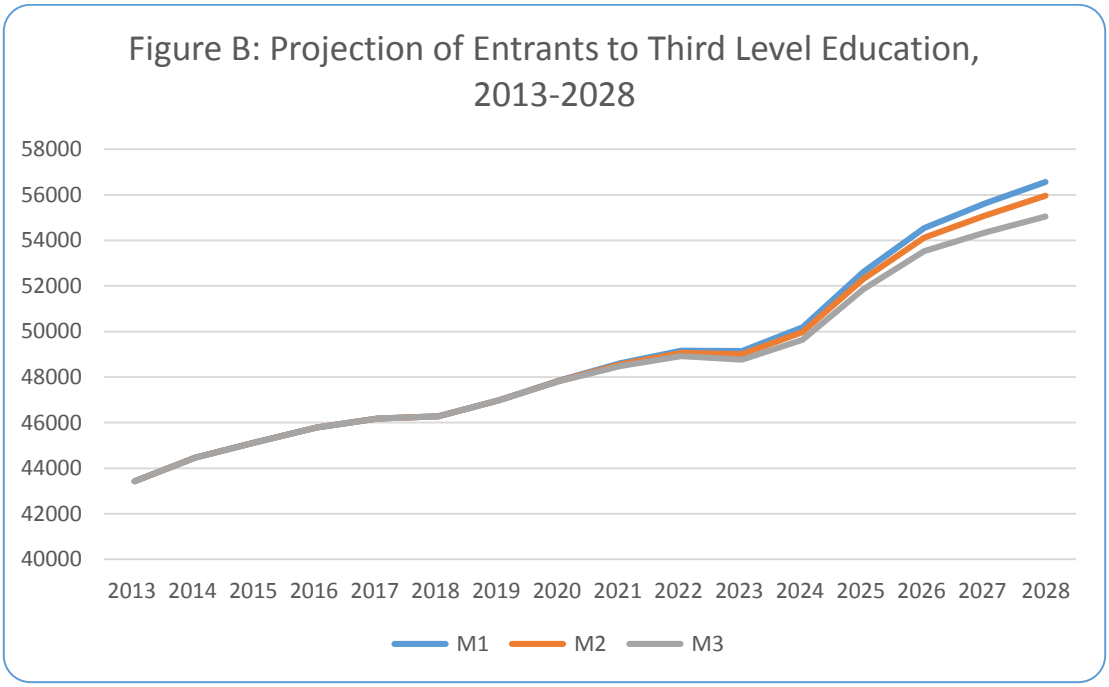
Trends in international student entrants, particularly those from non-EU countries are, in general, not dictated by Ireland's economic or demographic profile of the moment, but rather by events and policies in their home countries. Ireland has seen a gradual increase in international students in recent years, however the most recent data available from HEA shows that the numbers of international students enrolled has remained flat between 2010 and 2012. This new lower base has been reflected in the 2014 projections model. Given that many third level Irish institutions are aiming to attract a larger number of international students to their campuses, an assumption is built into the model that numbers of international students will very gradually increase over time, albeit from a lower base than assumed in previous projections.

Projections of New Entrants to Third Level, 2013-2028

Based on the factors considered above, the following Table shows the projected third level entrants under each migration assumption, M1, M2 and M3.

Table 2: Projections of New Entrants to Third Level , 2013-2028

	M1	M2	M3
2013	43,423 (*estimated*)		
2014	42,331		
2015	45144	45144	45144
2016	45780	45780	45780
2017	46184	46184	46184
2018	46277	46277	46277
2019	46988	46988	46988
2020	47857	47840	47823
2021	48615	48558	48490
2022	49153	49058	48920
2023	49138	49003	48764
2024	50179	49971	49631
2025	52620	52303	51860
2026	54545	54117	53531
2027	55615	55093	54339
2028	56566	55961	55045



Under all migration scenarios, the numbers entering third level are projected to rise continuously between 2013 and 2028. This is a direct result of the underlying demographic profile of the population.

Rate of Undergraduate Turnover (ROUT)

In addition to projecting the number of entrants, a projection needs to be made of the likely level of continuing enrolments. The rate of undergraduate turnover is the proportion of total Higher Education undergraduate enrolment which is "turned over" into the following academic year. It is calculated as follows:

Rate of Undergraduate Turnover = ROUT = (Stock $^{t+1}$ *– Entrants* $^{t+1}$*) / Stock* ^{t}

Where

Stock ^{t} = total enrolment in full time undergraduate courses at Higher Education in year T

Stock $^{t+1}$ = total enrolment in full time undergraduate courses at Higher Education in year T+1

And *Entrants* $^{t+1}$ = total intake to full time undergraduate courses at Higher Education in year T+1

This measure gives an indication of those who continue each year in higher education. If one takes the total stock enrolment in one year, then those remaining the following year are those that have not either graduated, or dropped out of college. Although no analysis is made of the proportion of graduates and dropouts each year, the ROUT gives an implied figure for combined turnover in the sector year-on-year due to both graduation and dropout.

For the latest data available, from 2011 to 2012 academic year, the ROUT is calculated as follows:

Stock 2012:	*142,920*
Entrants 2012:	*41,661*
Stock 2011:	*143,676*
ROUT =	*(142,920 – 41,661) / 143,676*

This gives a rate for the sector as a whole of just under 70.5%, which is lower than the ROUT of 71.5% used in the previous set of projections. The figure of 71.5% is carried throughout the model, resulting in a slightly lower year on year increase throughout the projections period.

Postgraduate Enrolments

The final component in the third level projections model is a projection of postgraduate enrolments as a proportion of total full time enrolment.

In recent years there has been a gradual increase in the proportion of postgraduate enrolments, from 12.5% of total full time enrolment in 2005 to a peak of 14.5% in 2009. The proportion of postgraduate enrolments remains stable at just over 13.3% in 2012, down slightly from 13.7% in 2010, and reflects a continued levelling off of the increases in postgraduate numbers recorded in recent years. This figure is rounded to 13.5% and carried throughout the model.

Comparison with Previous Projections.

The following table shows the third level projections of full time demand, as published in July 2013.

Table 1: Projections of Full Time Demand for Education in DES-Aided Third Level Institutions, 2012-2027

	M1	M2	M3
2012	166906 (*estimated enrolment*)		
2013	168139		
2014	171,671	171,671	171,671
2015	175,424	175,388	175,352
2016	178,626	178,553	178,463
2017	181,207	181,090	180,930
2018	183,273	183,095	182,863
2019	185,429	185,207	184,886
2020	188,073	187,799	187,370
2021	191,048	190,712	190,168
2022	194,107	193,657	192,988
2023	196,665	196,072	195,269
2024	199,633	198,880	197,936
2025	204,177	203,253	202,161
2026	209,540	208,416	207,150
2027	214,822	213,468	211,991

In general the projected enrolments for all years have been adjusted downwards by 2-3%. The main reasons for this are as follows.

1) The latest data from HEA for 2012/2013 and provisional entrant data for 2012 show a continued levelling off of the increases in full time undergraduate enrolment seen in recent years. Full time undergraduate enrolment increased by just 1% between 2011 and 2012, which is lower than the increases recorded

in previous years. This lower base has a knock on effect on enrolments in subsequent years.

2) The emerging trend of flattening full time undergraduate enrolments comes in the context of continued levelling off of numbers of international new entrants and mature students. In addition, a wider range of part time third level reskilling courses and remote or distance learning options have become available in recent years.

3) Recent information showing a continued levelling off of the proportions in postgraduate education has led to a slight reduction in the projected proportion of postgraduate students.

4) Changes to the data in any particular year have a compound effect on data in subsequent years, due to the use of the Rate of Undergraduate Turnover (ROUT) in projecting year on year figures. The ROUT has decreased by 1% in 2012 compared to 2011.

5) Changes to the underlying migration data as a result of updating the migration assumptions have had a very slight downwards impact on the numbers, although the effect of this change is minor compared to the other factors above.