

Summary: Analysis & Evidence

Policy Option 2

Description: Set a new qualifying test for determining non EEA migrants' entitlement to free NHS care. Migrants who are not otherwise exempt will be required to pay an immigration health surcharge when they make an application for leave to enter or remain in the UK.

FULL ECONOMIC ASSESSMENT

Price Base Year 2013/14	PV Base Year 2014/15	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: optional	High: optional	Best Estimate: 1,970

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	optional		optional	optional
High	optional		optional	optional
Best Estimate	2		31	270

Description and scale of key monetised costs by 'main affected groups'

Loss in revenue to Home Office (HO) due to fewer applications – around £6 million (PV)
 Administration costs for the HO – around £9 million (PV)
 Impacts on the Exchequer – around £160 million (PV)
 Impacts on the Higher Education Sector – around £90 million (PV)
 Administration costs for the NHS – around £3 million (PV)

Other key non-monetised costs by 'main affected groups'

N/A

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	optional		optional	optional
High	optional		optional	optional
Best Estimate	-		260	2,240

Description and scale of key monetised benefits by 'main affected groups'

Income to Government from an immigration health surcharge - around £2 billion (PV)
 Reduction to public service and welfare provision – around £200 million (PV)
 Increased employment opportunities for UK residents – around £70 million (PV)
 Reduction in HO processing costs – around £4 million (PV)

Other key non-monetised benefits by 'main affected groups'

N/A

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

Migrant price elasticities are assumed to be as set out in Annex A (in-country PBS dependants are assumed to be non-responsive to changes in fees). Elasticity effects are based on the change in fees against the expected income of the applicant over the duration of stay in the UK. Fiscal effects are based on assumed income and direct and indirect tax contributions; unit costs of public service provision are estimated for migrants based on available evidence. Health costings are for secondary care services only.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			In scope of OITO?	Measure qualifies as
Costs: N/A	Benefits: N/A	Net: N/A	No	NA

Evidence Base (for summary sheets)

A. Strategic Overview

A.1 Background

Migration has brought benefits to the UK and the Government believes that we should continue to be an open and diverse society, attracting and welcoming the brightest and the best to help promote economic growth and competitiveness. The Government is committed to operating proper controls on immigration, to ensure that public confidence in the immigration system is maintained and pressures on communities and public services alleviated.

The Government also believes migrants should come to the UK for the right reason - to contribute to our society rather than simply taking from it. The Prime Minister, in his immigration speech of 25 March 2013, announced that immigration policy would be factored into the benefits, health and housing systems, making entitlement to UK key public services something migrants earn rather than access as an automatic right. The current rules regulating migrant access to the National Health Service (NHS)¹, which are overly generous when compared to other countries, do not reflect this policy intent. At present many temporary non-European Economic Area (EEA) migrants who come to the UK for more than 6 months are likely to qualify for the same access to the NHS as a person who is permanently resident, either upon their arrival in the UK or very shortly after. This is inconsistent with wider government policy and places an unfair burden on the UK taxpayer.

The Government therefore intends to take action to better regulate migrant access to the NHS; by ensuring entitlement to free healthcare is directly linked to the immigration status of the migrant. This is an appropriate and proportionate response as the immigration status of a migrant reflects clearly the strength of their connection and commitment to the UK.

A.2 Groups Affected

This policy is directed toward non-EEA temporary migrants in non-visitor immigration categories who come to the UK for more than 6 months.

The following immigration categories will not be affected:

- A person making an application for leave to remain outside the immigration rules as a victim of human trafficking.
- Those seeking and those granted limited leave to remain under the immigration rules dealing with asylum, temporary protection or humanitarian protection².
- Children in local authority care who are making an immigration application.
- Applicants under Tier 2 Inter-Company Transfer (ICT) applications.
- Non-EEA family members of EEA nationals exercising treaty rights in the UK.

The Secretary of State for the Home Department will have the power to prescribe that certain additional categories are exempt from the immigration health surcharge. The

¹ For the purpose of this document, the National Health Service (NHS) refers to the four publicly funded healthcare systems within the UK. These are the National Health Service (England), NHS Scotland, NHS Wales and the Health and Social Care Board and Health and Social Care Trusts in Northern Ireland.

² Part 11 of the Immigration Rules <http://www.ukba.homeoffice.gov.uk/policyandlaw/immigrationlaw/immigrationrules/part11B/>

Secretary of State for the Home Department will also have the power to waive the surcharge where there are exceptional reasons to do so.

This policy will require all non-EEA temporary migrants (subject to certain exceptions, including those set out above) to contribute to the cost of any healthcare they may receive whilst in the UK through payment of a surcharge, through which they may enrol in the NHS.

The Home Office will be required to collect the surcharge as part of its visa application process. The Department of Health will also be affected, in respect of checking the chargeable status of migrants who receive healthcare and recovering charges from those who have not paid the surcharge.

A.3 Consultation

Within Government

Proposals were discussed and developed by the Inter-Ministerial Group on Migrant Access to Benefits and Public Services.

Public Consultation

On 3 July, the Home Office published *Controlling Immigration – Regulating Migrant Access to Health Services in the UK*. The consultation ran for eight weeks and closed on 28 August 2013. The consultation responses can be found at <https://www.gov.uk/consultations>.

B. Rationale

These proposals respond to longstanding public concern that the current rules regarding migrant access to the NHS are too generous. Migrants coming to the UK for more than six months to work, study or settle are likely to qualify for free healthcare on their arrival in the UK or very soon after. Compared to the rules in other countries, many of which require migrants to hold comprehensive health insurance, the UK's position appears overly generous (see Table 1).

It is government policy that those who are subject to immigration control should have access to public benefits commensurate with their immigration status, thereby reflecting the degree of connection to the UK associated with that status. Migrants who are permanent UK residents, for example, have committed to a long-term relationship with the UK, and may make significant contributions to the UK economy and society. This commitment and connection, afforded by their permanent residence status, should enable them to enjoy the benefits of living in the UK to the same extent as a British citizen, including access to public services. At the opposite end of the scale are illegal migrants; given their minimal relationship with the UK, they should have no entitlement to support from public services.

The present rules governing migrant access to the NHS do not reflect this policy and are also not consistent with wider general government policy on migrant access to income-related benefits and social housing. Existing immigration legislation largely restricts access to these income related benefits to those non-EEA nationals with indefinite leave to remain and those granted refugee status in the UK or humanitarian protection. The lack of comparable controls on access to free healthcare has meant that the NHS has been comparatively generous and also open to abuse, places an unfair demand on the UK taxpayer and may draw migrants to the UK for the wrong reasons. Government intervention is therefore necessary in order to address this situation.

By establishing a new qualifying test of permanent residence for free NHS care, the Government will bring healthcare into line with its wider immigration policy and protect UK taxpayers from shouldering unfair financial burdens.

The new qualifying test will render approximately 552,000³ applicants each year potentially chargeable for NHS care. The Government is however mindful of the need to ensure that the UK maintains its attractiveness to migration which contributes positively to economic growth. Rather than introduce a requirement that all chargeable migrants purchase private health insurance, which can in some cases be prohibitively expensive (for example, for those with pre-existing medical conditions) the Government proposes to introduce an immigration health surcharge that migrants will be required to pay when making a visa application. The surcharge will cover the costs of health care that the migrant may require during their stay in the UK, including accident and emergency treatment and maternity care. It will be considerably cheaper for individuals than private health insurance whilst providing more comprehensive healthcare coverage.

Migrants applying for leave to enter or remain under the ICT category will also be exempt from the requirement to pay the surcharge. The ICT route aims to bring the most highly-skilled international workers to the UK. It also brings investment to the UK, thereby boosting our economy and benefitting UK workers who work with and learn from these skilled migrants and who may also utilise reciprocal ICT arrangements in other countries. Lead ICT migrants are required to be in employment (unlike students) and are able to support themselves through that employment.

For students, the surcharge will be set at a lower level. This reflects their contribution to UK growth, the importance of foreign migrants to the university sector in the UK and the fact that most foreign students will already be making a high contribution towards the cost of their education through tuition fees.

C. Objectives

The key policy objective is to better regulate non-EEA temporary migrants' access to publicly funded healthcare systems in the UK, ensuring those who are subject to immigration control have access to healthcare in a manner commensurate with their immigration status.

D. Options

Option 1 is to make no changes (do nothing). Non-EEA migrants will continue to access NHS care as now. Many migrants granted leave to enter or remain for more than 6 months will receive free NHS care.

Option 2 is to set a new qualifying test for determining non-EEA migrants' entitlement to free NHS care. Migrants who do not meet this test will be chargeable for the costs of their healthcare, subject to some exceptions.

There is a legislative requirement for the Secretary of State for Health to provide a comprehensive health service that is available to all. Therefore a legislative change is required to amend migrants' access to free healthcare. We have also considered a number of other options, including a 'pay as you go' system of charging for migrant healthcare and introduction of a requirement that migrants hold health insurance. Both of these options would place significant administrative burdens on the NHS, which in turn would need to put

³ Home Office Migration Statistics

in place new and complex systems for charging and recovery of debt. The pay as you go option is likely to be more expensive for migrants who require treatment compared to the surcharge approach and would increase the risk of bad debt to the NHS.

The health insurance option would prove significantly more expensive for the migrant when compared to a surcharge. This is because the migrant would need to acquire comprehensive private insurance that covered all eventualities, at an estimated cost of around £3,000⁴ per year. Most existing private insurance policies are supplemental to the NHS, as they do not cover accident and emergency treatment, or certain medical conditions. Existing policies are therefore not comparable to the level of health insurance that would be required under this option. Where migrants have existing health problems, private health insurance could also prove prohibitively expensive. In addition, a compulsory health insurance scheme is, of itself, contrary to the legal requirement that UK health ministers provide a 'comprehensive health service' that is available to all.

Option 2 - Detail

To better ensure those who are subject to immigration control have access to healthcare in a manner commensurate with their immigration status, a new test for determining eligibility for free healthcare will be introduced – the test will be one of permanent residence. Permanent UK residents (those with indefinite leave to enter or indefinite leave to remain) will continue to enjoy free access to NHS services - this is entirely proportional to their close and continuing long-term relationship with the UK.

Temporary non-EEA migrants, including those on a route to settlement in the UK, will be considered chargeable for healthcare. Chargeable migrants who are not otherwise exempt from charging will be required to pay an immigration health surcharge at the same time as they make an application for leave to enter or remain in the UK. The surcharge will work on the principle of pooling the risks and costs of migrants requiring NHS treatment. This approach will provide the UK taxpayer with a greater level of protection against paying for migrant healthcare costs.

Payment of this surcharge will allow chargeable migrants access to NHS services in the same way as a permanent resident, subject to exceptions for certain discretionary treatments.

Payment of the surcharge will be a precondition of entry and stay and must be paid in full at the time of application. The surcharge will be set at a certain rate per annum and must be paid for each year of leave granted. This would mean a student coming for three years would pay three times the annual surcharge rate at the same time as their application for entry clearance. Those granted leave to remain for less than a year will pay the surcharge on a pro-rata basis, calculated on the basis of how many months of stay they are granted. The surcharge will be refunded where an application for leave to enter or remain is refused. The surcharge will not be refunded where the migrant returns home earlier than planned, or does not use the NHS whilst in the UK if the migrant leaves the UK without having used the NHS.

Certain categories of person making applications for temporary leave, will be exempt from paying the immigration health surcharge. These include children in local authority care who are applying for leave to remain, those seeking asylum, temporary or humanitarian protection or leave to remain as a victim of trafficking, and applicants under Tier 2 ICT.

⁴ Anecdotal estimate from discussions with the insurance industry.

Short term visitors and illegal migrants will, as now, be liable for NHS full treatment charges, subject to existing exemptions and will not have the option of paying a surcharge in order to access the NHS without further charge.

Transitional arrangements will be put in place for affected migrants who are already in the UK at the time the policy is implemented. The Government recognises that migrants granted leave before this policy is implemented will have made a decision to come to UK based on a number of factors, including an assumption that they would be eligible for free healthcare. It is anticipated that temporary non-EEA migrants already in the UK at the time this policy is implemented, will not be liable to pay a surcharge and will not be charged for healthcare for the remainder of their leave. Once their leave expires however, the migrant will be required to pay the surcharge as part of any further immigration application.

The surcharge amount will be set by the Secretary of State for the Home Department, through secondary legislation, but is expected to be set at a rate of around £150 per annum for Tier 4 visa applicants and around £200 per annum for other visa applicants that are chargeable under this policy. The Secretary of State for the Home Department will also have the power to vary the amount of the surcharge, again through secondary legislation.

Identifying the Preferred Immigration Health Surcharge for Migrants

The core assumptions in the Home Office model used to estimate the impacts of a health surcharge are the elasticities used to determine changes in the volume of migrants applying for entry or leave to remain (LTR). These elasticities are generally valid to assess the impact of a small change in the price of coming to the UK and may not be valid when applied to a change in price of the scale of the surcharge. However, research into the relationship between price and demand for visas does not allow the identification of the point where the demand response becomes more sensitive to changes in price. The elasticities applied are linear elasticities, meaning that constant changes in price will lead to constant changes in demand, with no tail-off in demand at the high end of price rises. Therefore, as the proposed health surcharge for migrants rises, demand for visas would fall, but the model cannot identify the point where demand would become more sensitive to changes in price. This means that as the health surcharge increases, surcharge income would grow compared to the do nothing option.

This limitation in the model means that it is not possible to find the equilibrium point for the optimal surcharge. Furthermore, it is not possible to reliably quantify the impacts on economic growth. As a higher surcharge would lead to bigger deterrence effects, we would not be able to estimate the negative impacts of this on economic growth. Therefore, a simple options appraisal around different levels of surcharge could be misleading.

It is government policy that those who are subject to immigration control should have access to public benefits commensurate with their immigration status. The present rules governing migrant access to the NHS do not reflect this policy and the lack of comparable controls on access to healthcare has meant that groups of people who pay for care elsewhere have had free access and also left the NHS open to abuse by those who actively seek to avoid payment where it is due.

Given the rationale for introducing a surcharge, the appropriate level for an immigration health surcharge has been determined by analysing factors such as the average cost of using the NHS and insurance premiums, international comparisons and the scale of the deterrence effect.

The Department for Health (DH) has estimated that the average cost per head of the English resident population for all NHS services (including primary and secondary care) is around

£700 per annum for 15-44 year olds. In 2011, 86 per cent⁵ of migrants arriving in the UK were aged between 15 and 44 years. Comprehensive private medical health insurance could cost around £3,000 per annum⁶.

However, these figures are far higher than our international competitors as they would need to reflect the full range of NHS services (current health insurance policies are supplemental to NHS care). Table 1 shows the international comparison for basic medical health insurance in some of our key competitor countries in specific circumstances where the migrant had no pre-existing medical condition or adverse clinical history (for example, did not smoke or on prescribed medication). Rates will vary considerably according to individual circumstances and are likely to exceed (and for some cases, significantly) the premium stated. In some cases, insurance may not be available at any price and this could impact some vulnerable groups.

Country	Age	Single/Family	Occupation	Annual Premium (£)
Australia	24	Single	Student	300
Australia	24	Single	Worker	380
Australia	-	Family	Worker	1,500
Canada	24	Single	Student	300
Canada	50	Single	Worker	380
New Zealand	24	Single	Student	325
New Zealand	24	Single	Worker	400
New Zealand	-	Family	Worker	760
Schengen States	24	Single	Student	275 – 1,100
USA	24	Single	Student	400 +
USA	24	Single	Worker	480 +

Source: Home Office Analysis
 Note that countries will have different insurance coverage and healthcare systems which are not directly comparable to the UK

Costs for migrants to obtain healthcare in most of our key competitor countries are between £300 and £500 per year. In order to remain price competitive, it is proposed that the UK immigration health surcharge be set below this amount.

The surcharge is likely to deter some applicants from applying to come to the UK, which may have an impact on economic growth. However, the volumes deterred are small relative to the UK population and will have a minimal impact on growth. As growth impacts cannot be reliably quantified, a scoring system has been produced, between -1 and -10, to show the potential impacts. The scores are relative to the £200 surcharge scenario. Table 2 shows the potential negative growth impacts from the volume of migrants deterred at various levels of health surcharge. Based on the analysis above, the options for a surcharge have been set between £200 and £3,000 per annum, with Tier 4 migrants being charged at £150 per year of leave granted. As the cost of £3,000 generates the largest predicted reduction in visa grants, this shows up as a score of -10, as it is assumed that this would have a 10 times negative impact on growth, given the volumes likely to be deterred, compared with the £200 option.

⁵ Table 2.07 LTIM Age and Sex 1991-2011. Available from <http://www.ons.gov.uk/ons/search/index.html?newquery=ltim>

⁶ Anecdotal estimate from discussions with the insurance industry.

New Health Cost for Migrants (per annum):	Lost Exchequer Revenue (£m, annual average)	Growth Impact	Total Reduction in Immigration	T1	T2	T4	T5	Family
0 (base case)								
£200	20	-1	1,480	80	90	830	240	240
£500	36	-2	2,450	200	230	830	600	600
£700	47	-3	3,100	280	320	830	840	840
£3,000	180	-10	10,530	1,180	1,350	830	3,580	3,580
Age-stratified	55	-3	3,280	310	530	740	940	770
Source: HO								
Notes:								
Numbers may not sum due to rounding.								
Age Stratified (5-14: £540, 15-44: £700, 45-64: £1,550, 65-74: £3,650 and 75+: £6,280)								
Tier 4 surcharge set at £150 in each option								
ICT migrants excluded from paying a surcharge in each option								

The discussion above highlights the difficulty in estimating the optimal healthcare amount. However, by looking at the deterrence effects, the potential negative impact on economic growth and the cost of healthcare in our competitor countries, it is possible to establish an amount that would be appropriate and reasonable. Based on this analysis, the new healthcare surcharge of around £200, with the Tier 4 surcharge at around £150 is considered to be set at a reasonable level. This is lower than the average healthcare cost per head of the English resident population in the age group 15-44 years. Setting the surcharge at a low level would allow the UK to retain our competitive advantage compared to our key competitor countries.

E. Appraisal (Costs and Benefits)

KEY ASSUMPTIONS & DATA

Objective function

In January 2012, the Migration Advisory Committee (MAC) published a report on the impacts of migration and recommended that migration policy impact assessments should concentrate on the welfare of the resident population. The policy proposal assessed in this impact assessment therefore aims to increase the welfare of the legally resident population - defined as those formally settled in the UK or nationals of the UK. The NPV should include the effects from any change in fiscal, public service, consumer and producer surplus and dynamic effects where practical and appropriate, but should exclude foregone migrant wages (net of taxes). In line with this, the Impact Assessment (IA) will not consider impacts on the migrant where they have to pay for private health insurance, or a health surcharge. It does include the subsequent income to the UK Government.

Assumptions and Data

This IA covers a 10 year period from 2014/15, in line with guidance from the Better Regulation Executive (BRE). The Immigration Bill is expected to obtain Royal Assent during 2014. We propose to fully implement the scheme outlined in this IA from April 2015, but will be looking to introduce priority aspects of the scheme as soon as operationally feasible. The IA assumes that implementation will occur in 2014. This IA aims to set out the best estimates

of the policy impacts at the final stage of policy development, using the available evidence. Any uncertainties are highlighted and the main assumptions tested in the sensitivity analysis section to show the range of potential impacts.

The section below sets out the assumptions used to quantify the impacts of the policy changes.

- All costs and benefits compared against the 'Do Nothing' (Option 1) case.
- The immigration health surcharge will be applied to main and dependent Tier 1, Tier 2 (excluding ICT migrants), Tier 4 and Tier 5 applications, as well as family applications and those that apply under 'UK ancestry' and 'Private Life'. This would affect all new out of country and in country applications.
- The surcharge would be paid upon application and will be paid up front. The total amount payable will be dependant on the length of the visa grant. For example, if a visa is granted for 3 years, the migrant would have to pay the surcharge times 3, that is, £600.

Volumes

The policy would impact on new out of country and new in country applications. The Home Office (HO) publishes volumes of applications and grants for migration products. Tables 3 and 4 below show application and grant volumes, both out of country and in country, for 2012 (excluding ICT applications and grants). The estimated duration of stay by each visa category is also shown in Table 5 (also excluding ICT applications and grants). The Home Office does not forecast future levels of migration. Thus, this appraisal assumes that volumes will be constant in future years.

	Out of Country	In Country	TOTAL
Tier 1	3,800	42,700	46,500
Tier 2^a	21,400	34,900	56,300
Tier 4	235,300	100,300	335,600
Tier 5	38,800	1,100	39,900
Family	53,400	20,100	73,500
TOTAL	352,700	199,100	551,800

Source: HO
Notes:
Numbers may not sum due to rounding.
This policy will also apply to applicants apply under 'UK ancestry' and 'private life'. We have aggregated these in the 'Family' category.
a) Excludes ICT applications

	Out of Country	In Country	TOTAL
Tier 1	3,100	41,100	44,200
Tier 2^a	19,800	33,000	52,800
Tier 4	209,700	87,100	296,800
Tier 5	36,900	1,000	37,900
Family	38,100	17,900	56,000
TOTAL	307,600	180,100	487,700

Source: HO Analysis
Notes:
Numbers may not sum due to rounding.
This policy will also apply to applicants apply under 'UK ancestry' and 'private life'. We have aggregated these in the 'Family' category.
a) Excludes ICT grants

Table 5: Estimated Duration of Stay (years) (Average of Main & Dependant)		
	Out of Country	In Country
Tier 1	3	2
Tier 2	3	3
Tier 4	3	3
Tier 5	2	1
Family	3	3
Source: Home Office Analysis		
Notes: Duration of stay for in-country is the average additional length granted.		

The Home Office has monitored the impact of visa fee changes upon application volumes for previous rounds of visa fee changes. There is no evidence that previous fee increases have had a statistically significant impact on application volumes in previous years. No statistically significant elasticity of demand has been found, suggesting that demand for products tested (T2, T4 and settlement visas) are not normally sensitive to small changes in price.

As it has not been possible to directly estimate the price elasticity of demand for Home Office products, this analysis has therefore adopted the price elasticities of demand for other products using elasticity estimates from academic literature such as the wage elasticity of labour supply for work routes. The latest literature review was undertaken in 2010 and further details of the studies used can be found in Annex A. The application of these elasticities has not been tested in relation to visa fees or the scale of price increases analysed here and is unlikely to reflect the real elasticity in the specific circumstances here, but it is believed that these are the best available proxy measures.

- Work - Supply of Labour

Migrants demand visa products in order to supply labour in the UK. The wage elasticity of labour supply is the responsiveness of the supply of labour due to changes in the expected level of return from working in the UK. This is used to estimate the impact on volumes of the proposed fee changes, for example, the introduction of a surcharge would represent a reduction in expected return, so is likely to reduce the volume of people willing to supply labour in the UK labour market. This elasticity is also applied to migrants whose fee could potentially be paid by the employer. Whilst this would mean the fee change could potentially affect demand for labour by employers, it is not known what proportion of work visas are paid for by employers. The evidence suggests a range of elasticities between -0.07 and -1. This IA uses -0.5 as the central estimate.

- Study - Demand for Higher Education

Migrant students demand student visa products in order to purchase education in the UK. The price elasticity of demand for higher education is the responsiveness of the demand for higher education due to changes in the cost of studying in the UK. International estimates for the price elasticity for higher education are used, since no estimates are available for the UK. The evidence suggests -0.5 would be a rational estimate.

- Dependants of Points Based System (PBS) migrants

For in-country PBS dependant applications, we assume no price sensitivity to fee changes in the central case given they are already in the UK with their family member (the main PBS migrant). An increase in fee is unlikely to lead to a dependant leaving the UK while the main applicant remains.

It should be noted that the elasticity estimates set out above are uncertain as they are not derived from literature focussing on the UK, nor are they direct estimates of the responsiveness of demand to changes in visa prices. As discussed above, research into price and demand for visa products do not allow the identification of the point where demand would become more responsive to the change in cost.

These elasticities suggest that for a 1 per cent decrease in expected earnings from coming to or remaining in the UK, there is a 0.5 per cent decrease in demand. For Tiers 1, 2, 5 and Family, the elasticity is multiplied by the change in earnings for each visa, to obtain the estimated percentage reduction in visa applications for that visa. The change in earnings is due to the fee increase, and is used here as the **wage** elasticity of labour supply. For Tier 4, the elasticity is multiplied by the change in the cost of studying in the UK. The cost of studying is defined as the sum of tuition fees and the annual cost of living – and again the change is due to the fee increase.

Public Sector Unit Costs

Changes in the volume of applications received and processed by the Home Office will affect Home Office income and costs. Table 6 sets out the cost of in-country and out of country migration products and the cost to the Home Office of processing these applications (excluding ICT migrants).

Table 6: Average Application Fee (Average Unit Cost of Processing an Application in brackets)			
<i>£ per application</i>		Out of Country	In Country
Tier 1	Main	840 (295)	886 (438)
	Dependant	781 (295)	665 (438)
Tier 2^a	Main	494 (207)	578 (225)
	Dependant	494 (207)	434 (225)
Tier 4	Main	298 (244)	406 (238)
	Dependant	298 (244)	305 (238)
Tier 5	Main	200 (158)	200 (222)
	Dependant	200 (158)	150 (222)
Family	Main	507 (285)	578 (281)
	Dependant	507 (285)	434 (281)

Source: Home Office Analysis
a) Excludes ICT migrants

Option 1 – Do nothing

There are no additional costs or benefits of option 1. However, there will be a number of risks and costs that will continue to arise. Temporary migrants will still be able to access NHS services at little or no cost soon after their arrival in the UK, in contrast with the Government's policy on migrant's access to income related benefits and social housing. The burden on taxpayers and abuse of the NHS will continue.

Option 2 - Set a new qualifying test for determining non-EEA migrants' entitlement to free NHS care. Migrant's who are not otherwise exempt, will be required to pay an immigration health surcharge – a form of NHS enrolment fee - at the same time as they make an application for leave to enter or remain in the UK.

The estimated volume impacts from the introduction of a surcharge are translated into monetary values for inclusion in the cost benefit analysis under two broad headings – direct costs and benefits, and indirect, wider, costs and benefits.

The **direct** costs and benefits are those that are clearly and immediately related to the introduction of a surcharge. The direct costs include, for example, the administrative costs to the NHS. The direct benefits, on the other hand, include income from the surcharge

The **wider**, or **indirect**, costs and benefits are those that occur as a result of the direct impacts, **including behaviour changes**. They should be considered when the impacts are thought to be significant. The wider costs include a set of assumptions relating to the wider economy. The wider costs and benefits include the impact on UK public services if the volume of people leaving voluntarily increases.

The following sections describe in more detail how costs and benefits have been calculated, and summarises the results. In general, the method is straightforward: total costs and benefits are the product of a change in volume and an estimated unit cost or benefit, adjusted for the particular impact being considered.

Impact of behavioural change

The estimated decrease in applications for UK migration products was forecast based on the elasticity assumptions outlined above when used in conjunction with the estimated change in earnings. Table 7 sets out the estimated change in grants (excluding ICT migrants).

Due to the uncertainty of how migration flows are likely to change in the future, the estimated decrease in annual applications is assumed to apply in 2014/15, and the impacts of this are assumed to apply equally in each year throughout the 10 year appraisal period.

Table 7: Changes in Volumes of Visa Grants						
		Visa Applications 2012	Estimated duration of stay (average of Main and Dep.)	Central elasticity / central scenario (excl. IC Dep.*)	% change earnings (average)**	Decrease in annual visa grants implied by healthcare charge
Out of Country	Tier 1	3,800	3	-0.5	0.6%	10
	Tier 2^a	21,400	3	-0.5	0.8%	40
	Tier 4	235,300	3	-0.5	0.8%	610
	Tier 5	38,800	2	-0.5	1.3%	230
	Family	53,400	3	-0.5	0.9%	170
In Country	Tier 1	42,700	2	-0.5	0.6%	70
	Tier 2^a	34,900	3	-0.5	0.4%	50
	Tier 4	100,300	3	-0.5	0.8%	220
	Tier 5	1,100	1	-0.5	1.3%	10
	Family	20,100	3	-0.5	0.9%	70
TOTAL						1,480
Source: HO Analysis						
Notes:						
*In-country dependants excluded as their elasticity estimate is deemed to be zero. This is because the decision to apply or not rests on income of main applicant - this is not the case for out-of-country dependants as consequence of not applying for in-country is sending dependant back to home country, whereas for out of country, consequence of not applying would be to remain in home country.						
**Increase in health care cost / (total earnings – the change in health care cost)						
a) Excludes ICT migrants						

Costs

DIRECT COSTS

The direct costs of the proposed surcharge are borne entirely by the public sector.

Public Sector Costs

One-off implementation costs for the Home Office – There would be one-off set up costs for the Home Office in terms of updating the visa application form and updating information available to prospective applicants around the new proposals. In addition, IT systems, such as the Immigration Case Working (ICW) system would need to be updated as well. UK Visa and Immigration (UKVI) estimate these costs to be around £2 million (one-off). This is a high level estimate and further work is required to refine it, and therefore it is subject to change.

One-off training and familiarisation costs for the Home Office – There would be training and familiarisation costs for frontline Home Office staff. It is estimated that around 1,700 staff⁷ would require training, which is assumed to be around 1 hour. It is assumed that an Administrative Immigration Officer (AIO) would carry out this task. The hourly rate for an AIO is estimated to be around £11.50 per hour⁸. Therefore, there would be a one-off cost of around £0.02 million.

One-off training and familiarisation costs for the NHS – Staff would require training/familiarisation time as a result of new rules and processes. It is assumed that this cost will be for the Overseas Visitors Manager (OVM) (or equivalent) that would be trained and would distribute information to the rest of the staff as per normal processes.

It is assumed this would take up to 1 hour for each OVM per trust. An OVMs salary is around £48,750 (including on costs) and there are approximately 168 OVMs in England. Therefore, the estimated cost is around £0.004 million (one-off).

Administration costs for the NHS – Under the do nothing option, there is an initial screening process which is followed by NHS frontline staff to identify whether a patient is chargeable in the system. This process would continue for this option. Therefore, it is assumed there would be small admin costs under this option.

DH estimate that around 15 per cent of the migrant group (72,900) would use the secondary care services in the NHS on an annual basis, and that the process time (that is, identification) is around 0.2 hours (10 minutes). Given the OVMs average salary of £48,750, the estimated impact of the administration costs for the NHS is likely to be around £0.3 million per year (around £3 million in PV over 10 years).

Administration costs for the Home Office – It is assumed that it would take an AIO around 10 minutes to do additional administrative work required to ensure that migrants have paid the correct surcharge and refunding refused applicants. This cost has been estimated to be around £1 million per year (around £9 million in PV over 10 years).

Loss in revenue due to fewer applications (Public Sector) – There will be an impact on Home Office income as some applicants are likely to be deterred from applying for a visa that is affected by these policy options. The estimated number deterred is set out in Table 7. It is estimated that Home Office revenue could fall by almost £1 million per year (around £6 million in PV over 10 years).

⁷ HO

⁸ Home Office (2013); Includes 16.4 per cent non-wage mark-up.

INDIRECT COSTS

Public Sector Costs

Impacts on the Exchequer – If a surcharge results in lower demand for UK visas, there may be a reduction in the volume of migrants in the UK. This would result in a reduction in the potential fiscal contribution of migrants to the Exchequer, which would have a negative impact on UK residents and therefore is included in the NPV. The direct and indirect tax contribution of migrants can be calculated using their estimated average gross earnings, current income tax rates and assumptions around indirect tax rates (see Annex B). Expected earnings range from £15,900 per annum for Tier 5, to £45,200 per annum for a Tier 2 migrant. Table 8 presents the unit costs (lost tax revenue per migrant by type of migrant) to the Exchequer (excluding ICT migrants).

It is estimated that the exchequer costs would be around £20 million per year (around £160 million in PV over 10 years).

<i>£ per year, per migrant</i>		Out of Country	In Country
Tier 1	Main	12,500	12,500
	Dependant	2,300	2,300
Tier 2^a	Main	17,200	17,200
	Dependant	2,300	2,300
Tier 4	Main	2,800	2,800
	Dependant	2,300	2,300
Tier 5	Main	6,700	6,700
	Dependant	2,300	2,300
Family	Main	2,300	2,300
	Dependant	2,300	2,300

Source: Home Office Analysis
Notes:
a) Excludes ICT migrants

Private/Third Sector Costs

Impacts on the Higher Education Sector – Education institutions would lose international tuition fees from migrants who are deterred from applying for a visa as a result of the surcharge. The international fees for non-EEA students are often higher per year than for UK and EEA students. The weighted average of this is estimated to be around £13,500 per year per migrant granted⁹.

The impact of this is estimated to be around £11 million per year (around £90 million in PV over 10 years).

Impacts on Businesses – Businesses, particularly Tier 2 sponsors may choose to pay for the surcharge if they are already paying the costs associated with a migrant coming to the UK. The proportion of businesses that would choose to pay the surcharge is unknown; therefore it is not possible to quantify this cost.

⁹ HO Analysis

Wider Economic Costs

Growth Impacts – A reduction in the number of migrants could potentially have an impact on economic growth. This is more likely to be at the higher skill level (for example, Tier 1 and Tier 2 applicants) rather than at the lower skill level due to the dynamic spill-over effects of specialisation and knowledge transfer. In addition, the size of the impact is dependant on the number of visa grants deterred. The change in the volume of grants per year is set out in Table 7. Although it has not been possible to quantify this impact, the impacts are likely to be small given the volume that are expected to be deterred relative to the size of the UK population.

Benefits

DIRECT BENEFITS

Public Sector Benefits

Reduction in Home Office processing costs – A fall in application volumes as a result of these policy options would result in administrative savings for the Home Office as processing costs fall. Table 6, shows the average fee for each product and the average cost of processing an application. It is estimated that Home Office processing costs could fall by almost £0.5 million per year (around £4 million in PV over 10 years).

Surcharge Income – The Exchequer would receive the income from the surcharge. This has been estimated to be around £230 million per year (almost £1.97 billion in PV over 10 years).

INDIRECT BENEFITS

Public Sector Benefits

Reduction in public service and welfare provision – If there is a reduction in the volume of migrants in the UK, then this could help reduce pressures on public services by reducing the volume of people eligible to utilise them. The cost of all services provided by the state can be allocated to each individual in the UK, on the assumption that consumption is the same as a UK resident of the same age. Annex C sets out the assumptions and calculations used to estimate the savings. Table 9 shows the average unit costs for each type of migrant.

Table 9: Average Cost of Public Sector Spending including Education and Social Services	
	£ per year, per migrant
Tier 1	6,000
Tier 2^a	6,000
Tier 4	5,700
Tier 5	4,300
Family	6,700

Source: Home Office Analysis
Notes:
a) Tier 2 in this table does not distinguish between different categories of Tier 2 migrants

The savings from a lower number of migrants are estimated to be around £20 million per year (around £200 million PV over 10 years).

Wider Economic Benefits

Increased employment opportunities for UK residents – The independent Migration Advisory Committee’s (MAC) January 2012¹⁰ report found that 100 additional non-EU migrants may cautiously be estimated to be associated with a reduction in employment of 23 native workers. Whilst there are studies that find zero or low displacement in the medium-term, in common with the MAC we have made a provisional assumption of 23% to capture any possible short-term labour displacement from increased non-EU migration. This IA assumes that the inverse of this finding is valid when the number of non EEA migrants is reduced. These assumptions are under review. Annex D sets out a description of the findings and application in impact assessments.

This option is likely to result in a drop in visa demand, which implies that, jobs that would have gone to the migrant may be replaced by a UK resident. It is estimated that between around 360 and 1000 additional jobs each year maybe filled by a UK resident. The majority of these jobs are likely to be part time jobs that were previously filled by those in the UK as a student. These jobs are likely to be unskilled and require no up-skilling by employers. If it is assumed that the jobs replaced with UK residents earn the same as the median wage for each type of migrant, then the benefit to UK resident from additional employment opportunities is estimated to be around £8 million per year (almost £70 million PV over 10 years).

Summary of costs and benefits

The costs and benefits as outlined above are summarised in Table 10, which also shows the sum of PV costs and PV benefits to generate the Net Present Value (NPV) for this option.

Table 10: Summary of Costs and Benefits			
	One-Off	Annual Average	Total (PV)
Costs			
NHS Familiarisation Costs	£0.004m	-	£0.004m
HO Familiarisation Costs	£0.02m	-	£0.02m
HO Set-up Costs	£2m	-	£2m
NHS Admin Costs	-	£0.3m	£3m
HO Admin Costs	-	£1m	£9m
HO Loss in Revenue	-	£1m	£6m
Exchequer Impacts	-	£20m	£160m
Loss to Education Sector	-	£11m	£90m
Total	£2m	£30m	£270m
Benefits			
Savings on Processing Applications	-	£0.5m	£4m
Income to Government from Surcharge	-	£230m	£1,970m
Savings on Public Services	-	£20m	£200m
Increased employment opportunities for UK residents	-	£8m	£70m
Total	-	£260m	£2,240m
NPV			£1,970m
Source: HO Analysis			
Notes:			
Numbers may not sum due to rounding			

¹⁰ MAC (2012) *Analysis of the impacts of migration*. available from <http://www.ukba.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/27-analysis-migration/>

F. Risks

The NPV in Table 10 is a central estimate, and given the assumptions involved, there is a great deal of uncertainty in this figure. The numbers should therefore be taken as illustrative.

Under the appraised option, there is a risk of adverse selection. Health tourists who expect to get a lot more benefit from the NHS during their stay may not be deterred. Migrants who do not anticipate drawing on the NHS at all will still need to absorb the average cost. In addition, migrants who have paid the surcharge could use the NHS more than they would have otherwise if they feel that they have already paid for the service.

Sensitivity analysis has been undertaken by re-estimating the NPV with different assumptions for the elasticities. Under the low elasticity scenario, it is assumed that volumes are not affected by the assumed changes, so migrants are not deterred from applying. In this scenario, there is a net benefit of almost £2 billion (PV) over 10 years. This is based on a benefit of around £1.97 billion (PV) over 10 years and a cost of around £10 million (PV) over 10 years, as outlined in Table 11.

Table 11: Summary of Costs and Benefits – Low Elasticity Scenario			
	One-Off	Annual Average	Total (PV)
Costs			
NHS Familiarisation Costs	£0.003m	-	£0.003m
HO Familiarisation Costs	£0.02m	-	£0.02m
HO Set-up Costs	£2m	-	£2m
NHS Admin Costs		£0.1m	£1m
HO Admin Costs	-	£1m	£9m
HO Loss in Revenue	-	£0m	£0m
Exchequer Impacts	-	£0m	£0m
Loss to Education Sector	-	£0m	£0m
Total	£2m	£1m	£10m
Benefits			
Savings on Processing Applications	-	£0m	£0m
Income to Government from Surcharge	-	£230m	£1,970m
Savings on Public Services	-	£0m	£0m
Increased employment opportunities for UK residents	-	£0m	£0m
Total	-	£230m	£1,970m
NPV			£1,960m
Source: HO Analysis			
Notes:			
Numbers may not sum due to rounding			

Under the high elasticity scenario, volumes decrease to a greater extent than is assumed in the central estimates, so migrants are deterred to a greater extent. In this scenario, there is a net benefit of around £2.1 billion (PV) over 10 years. This is based on a benefit of around £2.7 billion (PV) over 10 years and a cost of around £560 million (PV) over 10 years, as outlined in Table 12.

Table 12: Summary of Costs and Benefits – High Elasticity Scenario			
	One-Off	Annual Average	Total (PV)
Costs			
NHS Familiarisation Costs	£0.005m	-	£0.005m
HO Familiarisation Costs	£0.02m	-	£0.02m
HO Set-up Costs	£2m	-	£2m
NHS Admin Costs	-	£1m	£7m
HO Admin Costs	-	£1m	£9m
HO Loss in Revenue	-	£2m	£14m
Exchequer Impacts	-	£40m	£344m
Loss to Education Sector	-	£20m	£180m
Total	£2m	£65m	£560m
Benefits			
Savings on Processing Applications	-	£1m	£8m
Income to Government from Surcharge	-	£230m	£1,960m
Savings on Public Services	-	£60m	£540m
Increased employment opportunities for UK residents	-	£20m	£190m
Total	-	£315m	£2,700m
NPV			£2,140m
Source: HO Analysis			
Notes:			
Numbers may not sum due to rounding			

The central scenario, as used for the appraisal in Section E, assumes a level of responsiveness by migrants (through the elasticities) that is in between the levels assumed in the high and low scenarios. Consequently, the estimate of costs and benefits in the central scenario lie in between the estimates for the low and high scenarios.

Having carried out some initial work to estimate the responsiveness of application volumes to fee changes for various visa products, it was found that fee changes have little impact upon application volumes. It therefore seems unlikely that the high scenario will be realised, since this assumes that application volumes are highly responsive to fee changes.

G. Enforcement

This policy does not introduce any new enforcement powers. The surcharge will be paid on application, before permission to enter or remain in the UK is granted. Failure to pay the surcharge will result in an application being refused. Where a migrant seeking NHS care is found to be in the UK legally, but who has not paid the surcharge (and is not otherwise exempt from doing so), the relevant NHS trust will be responsible for recovering any treatment costs as appropriate. NHS trusts will inform the Home Office of any chargeable migrant (for example, one who has not paid the surcharge) that has failed to pay treatment charges of £1,000 or more. The Home Office will, under existing powers, refuse any further immigration applications from that migrant until the debt is repaid.

Where the migrant is found to be in the UK illegally, Home Office Immigration Enforcement officers will take appropriate action as part of existing operational procedures.

H. Summary and Recommendations

The table below outlines the costs and benefits of the proposed changes.

Option	Costs	Benefits
2	£270 million (PV over 10 years)	£2,240 million (PV over 10 years)
Source: HO Estimates		

The Net Present Value calculation is therefore £1,970 million over 10 years. This equates to a reduction of approximately 1,480 visa grants in 2014/15, and in each year thereafter.

I. Implementation

The Immigration Bill is expected to obtain Royal Assent during 2014. We propose to implement the scheme outlined in this document in autumn 2014.

J. Monitoring and Evaluation

The effectiveness of the new regime will be monitored by the Home Office, with support from the Department of Health and the devolved health ministries. The Inter-Ministerial Group on Migrant Access to Benefits and Public Services may also perform a monitoring and evaluation role. The performance of the policy will be monitored and measured against the objectives listed above and evaluated after full implementation.

K. Feedback

The Home Office will continue to work closely with the Department of Health and will engage with other government departments as required. The Home Office will maintain open lines of communication with migrants via a dedicated email address, and may also receive feedback as part of its normal visa issuing processes, through its public enquiry lines, and through formal correspondence with interested parties.

Annex A: Elasticity Assumptions

Table A.1 below sets out the elasticities used to analyse the impact of the changes in fees on different types of products. Tables A.2 to A.4 set out the academic papers used to justify the inclusion of these elasticities. Elasticities used for dependant applications are not included in Table A.1 as these were not derived from academic literature. Rather, they were derived from Home Office analysis on the likely response by dependants from changes to dependant fees. Such responses were deemed to yield a best case and central elasticity of 0, and a worst case value of -0.5.

Table A.1: Elasticities used to analyse the impact of changing fees

<u>Elasticity</u>	<u>Justification</u>	<u>Products</u>	<u>Magnitude</u>		
			<u>Best case</u>	<u>Central</u>	<u>Worst case</u>
Wage elasticity of labour supply	Migrants demand Home Office products in order to <u>supply</u> labour in the UK. The wage elasticity of labour <u>supply</u> is thus used to estimate the impact on volumes of the proposed fee changes. e.g. an increase in fee is a reduction in expected wage, so should reduce labour supply.	<i>Tier 1</i> visa, in-country, extensions; <i>Tier 1 Post-Study</i> visa, in-country and extensions; <i>Tier 2 General</i> visa, in-country, extensions; <i>Tier 2 ICT/Sports/MOR</i> visa, in-country, extensions; <i>Tier 5</i> Youth Mobility and Temporary Worker visa, in-country, extensions.	0	0.5	1.1
Price elasticity of demand for higher education	Migrant students demand Home Office student products in order to purchase education in the UK. Price elasticity of demand for higher education is used as a proxy for migrant price elasticity of demand for all types of education accessed through Tier 4.	Tier 4 visa, in-country, extensions	0	-0.5	-1

Table A.2: Empirical studies of the wage elasticity of labour supply

<u>Source</u>	<u>Estimate of wage elasticity of labour supply*</u>	<u>Measure</u>
R. E Lucas and L. A. Rapping, "Real Wages, Employment and Inflation", <i>Journal of Political Economy</i> , 77 (1969).	Short run: 1.12 – 1.13 (95% significance) Long-run: -0.07 – 0.58	Change in real wages on labour supply using US data 1929-1965
Y. Chang and S. Kim, "On the aggregate labour supply", <i>Federal Reserve Bank of Richmond Economic Quarterly</i> Volume 91/1 Winter 2005.	1.0	Aggregate labour supply elasticity
L. Osberg and S. Phipps, "Labour Supply with Quantity Constraints: Estimates from a Large Sample of Canadian Workers", <i>Oxford Economic Papers</i> , New Series, Vol. 45, No. 2. (Apr., 1993), pp. 269-291.	Between +0.1 and -0.1	Wage elasticity of labour supply in the Canadian Labour Market

P. Bingley and G. Lanot, " <i>The Incidence of Income Tax on Wages and Labour Supply</i> ", <i>National Centre for Register-based Research (NCR)</i> , Version 5.002 31 October 2000	-0.4	Elasticity of labour supply in the Danish Labour Market
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*Note that the estimated wage elasticity of labour supply includes negative values indicating backward sloping or backward bending labour supply curve. This is due to the income effect outweighing the substitution effect. For a higher wage, individuals can decrease labour supply and enjoy the same level of consumption.

Table A.3: Empirical studies of the price elasticity of demand for education

Source	Estimate of price elasticity of demand	Measure
Tuition Elasticity of the Demand for Higher Education among Current Students: A Pricing Model Glenn A. Bryan; Thomas W. Whipple The Journal of Higher Education, Vol. 66, No. 5. (Sep. - Oct., 1995), pp. 560-574.	Between -0.12 to -0.3	Elasticity of demand for HE in a small private liberal arts college in Ohio, from increases in tuition fees between \$6000 to \$8000
Campbell, R. and B. Siegel. "The Demand for Higher Education in the United States, 1919-1964." <i>American Economic Review</i> , (June, 1967), pp. 482-94.	-0.44	Aggregate demand for attendance in 4-year institutions in the US from 1927 – 63
Hight, J. "The Supply and Demand of Higher Education in the U.S.: The Public and Private Institutions Compared." Paper presented to the Econometric Society, December, 1970.	Between -1.058 and -0.6414	Used Campbell and Siegel's data and split up for public and private sectors
Hoенack, S., W. Weiler, and C. Orvis. "Cost-Related Tuition Policies and University Enrollments." mimeo., Management Information Division, University of Minnesota, 1973.	Between -1.811 to -.837	Private demand for the University of Minnesota, using longitudinal data from 1948-72.

Annex B: Methodology for calculating fiscal and income losses

Migrant earnings

The impact assessment assesses the impact on migrants' income and the fiscal impact on the UK. In line with the MAC report (2012), the NPV of the IA focuses on UK resident welfare, so only the fiscal impacts have been included. This fiscal impact is based on earnings for each migrant relative to the product being analysed. Wages have been calculated as follows:

- Tier 1 salaries have been obtained from a HO survey of migrants on the Highly Skilled Migrant Programme (HSMP) at the further leave to remain stage (Q1 2007). While different criteria were used for the HSMP compared to the Tier 1 General route, this is the latest available data. Tier 1 migrants are not required to report their salaries to the Home Office. This data has been updated using September 2012 ONS data on the average weekly earnings index.
- Tier 2 salary data has been obtained from Home Office management information. This is the latest available data, and was used by the Migration Advisory Committee in its report on proposed changes to settlement policy for Tier 1 and 2 migrants¹¹. This was also updated by September 2012 ONS data on the average weekly earnings index.
- Tier 4 salary data was taken from the weighted average salaries of median tuition fees for International students in 2012/13 (both undergraduate and postgraduate).
- Tier 5 salary data was obtained from LFS 2012 Q2 data on wages of those aged 21-26, who are nationals of Australia, Canada, Japan, New Zealand and Monaco. This is in order to proxy salary data for the Youth Mobility Scheme, which accounts for half of all Tier 5 out of country visas.
- For the purposes of estimating the impact on demand, dependants' salaries have been assumed equal to the main applicant salaries, as the main applicant will in all likelihood be paying the increase in fee for a visa for a dependent.

Fiscal Impacts

Assumptions were taken largely from ONS, HMRC and Understanding Society (2012), as well as previous papers on the fiscal impact of immigration, to estimate the fiscal contribution migrants might make.

Direct taxes include Income Tax, Council Tax and National Insurance Contributions. Income tax rates were applied by threshold values (HMRC, 2012). The average contribution made according to income quintile is calculated for council tax. (ONS, 2012, The effect of taxes and benefits on household income 2010/11).

Indirect tax is paid on items of expenditure and includes VAT, any duties paid on products (alcohol, fuel), licenses (driving, television) any other duties and estimated intermediate taxes (ONS, 2011, How indirect taxes can be regressive and progressive) Robust data on migrant specific expenditure are not available and there is significant uncertainty about their spending patterns. Indirect tax contributions will depend on their tastes and preferences and characteristics. As this is not known, the average proportion of indirect tax for the main applicant's income quintile was used.

The estimate provided of a migrant's final fiscal contribution covers only tax contributions and does not account for any positive impact they have on the provision of public service

¹¹ (<http://www.HomeOffice.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/settlement-restrictions-workers/>).

and the productivity of native workers, however, this may be offset by their consumption of public services and any displacement of native workers that may result from immigration.

The low, central and high models are based on published tax compliance rates (HMRC). Whilst full compliance is unlikely, assuming migrants' characteristics to be the same as natives', the high estimate assumes full compliance as it is the highest possible rate.

Annex C: Impact on Public Services

Home Office impact assessments have previously attempted to estimate the impact of migrants on health, education, criminal justice and welfare benefits using a bottom up approach which aims to identify consumption of specific services. However, these estimates present only a partial picture of the impacts and may be biased in that unidentified consumption may substantially alter the picture. For this reason a top down approach, which aims to allocate all public spending to each person in the UK, is preferred. This Annex sets out the preferred approach, which aims to estimate the impact on public services a change in the number of migrants arriving or remaining in the UK. This figure can be used to quantify the change in migration in impact assessments (IAs).

Allocation of Public Expenditure

A top down approach to allocating public spending to individuals assumes that consumption is broadly similar for all individuals included in the calculation. This approach has been documented in the relevant literature. (Glover et al, 2000 and NIESR, 2011) HM Treasury document total levels of public spending (total managed expenditure (TME)) in the Public Expenditure Statistical Analyses (PESA) 2011. This documents the total level of public spending categorised into the following categories of function of government spend: General public services; Defence; Public order and safety; Economic affairs; Environment protection; Housing and community amenities; Health; Education; Social protection and EU transactions.

Simple calculation

This allows public expenditure to be allocated to each individual in the UK. The analysis assumed 62.3 million individuals in the UK, from the ONS statistical bulletin of National population projections (2011). Per head costs are calculated as being the sum of total spending on each element of public services, divided by the total UK population, and does not vary across characteristics or groups. This method gives an estimated spend per person, including children, in the UK of £11,300 per person.

Public Goods

However, this figure includes public goods, which means it may not be reasonable to assume that excluding a migrant from the UK could have a marginal impact of £11,300 on public finances. Instead it is sensible to exclude costs associated with public goods, as the cost of extending or removing coverage to one additional migrant is zero as public goods are not attributable to any one individual in the population.

Public goods are defined as non-rival and non-excludable. To be non-rival it must be that the consumption of a good by one individual does not reduce the ability of others to consume that good. A non-excludable good means that once the good is provided it is impossible for any individual to opt out. An example of a public good may be national defence. Once national defence is provided for the country an individual is unable to opt out of it. Whether they wish to be defended or not, they will be defended as it is not possible to protect the country without also protecting everyone in it. However it is also true that one individual who receives the protection of national defence, does not reduce the defence of others. Thus the good is non-rival and non-excludable.

The characteristics of a public good mean that the marginal cost of providing the good to one additional person is zero. As such it is sometimes debated that the cost of that good, which is attributable to a single individual, should also be zero. For this reason estimate B in table 1 provides the estimated cost of public spending per person excluding those goods deemed to be public goods. The excluded spending includes items such as general public spending, research and development, defence, pollution and other environmental spending, and street lighting.

In addition to excluding these public goods, spending on public debt transactions and EU payments have also been excluded. This is because these are obligations which cannot be opted out of and are not always directly attributable to the current population. Thus on a similar principle to a public good they are not incurred on a per person basis and would not be affected by one additional migrant. Removing these categories reduces the average impact of a marginal individual in the UK to £9,100 per year. However, this does not control for differing characteristics of migrants and how these characteristics may affect use of public services.

The exclusion of public goods from the cost calculation is one that could be contested. It is possible to suggest that the migrant population in total is non-marginal and therefore the costs of migrants as a whole are not zero. However, as the IA approach is to estimate the impact of a marginal change in migrant volumes, the use of a zero marginal cost would be more appropriate. Similarly some previous methods have not excluded debt transactions, or have only excluded part of them. The reasoning in these methods is that there is still some benefit gained from the large infrastructure projects that incurred the debt. However, this is complex to calculate the remaining benefit and apportion the debt payments appropriately and it is doubtful whether the presence of migrants per se has affected the demand for such capital investment, so debt transactions have been excluded.

Welfare and Benefits

Allocating public expenditure to the individuals in the population includes welfare and benefit expenditure. However, most migrants will not be eligible to claim welfare and benefits until they have been in the UK for at least five years and they have formally been granted settlement in the UK. For this reason it is prudent to exclude welfare and benefit expenditure for migrants who have been in the UK for less than five years and who will not be eligible to claim. Estimate C in table 1 provides an estimated cost per person excluding public goods and welfare of £5,800 per person. For migrants who have been in the UK longer than five years and have settled here, welfare expenditure should be included, meaning estimate B is more appropriate.

Wider Services

This approach assumes that consumption is the same for all individuals. However, migrants and the native population are unlikely to be a homogenous group with identical patterns of consumption. Consumption is likely to vary by age, gender, family composition and other factors such as income and ethnicity. The recent report on the impacts of migration by the Migration Advisory Committee (2012) has presented new evidence on the social impacts of migration. The MAC commissioned NIESR to provide top down estimates on health, education and social services expenditure for different migrant groups.

Given that health, education and social services expenditure figures which take these characteristics into account are available, we have excluded these from our simple estimate. This gives two estimates of general public expenditure. Estimate D of £1,400 per person, which excludes public goods and welfare expenditure as well as health, education and social services expenditure and estimate E of £4,700 per person, which includes welfare and benefit expenditure while excluding public goods, health, education and social services. These wider estimates should be added to the estimates of health, education and social services expenditure which have been adjusted to account for age and other characteristics of specific migrant groups.

Table C.1: Summary of the per head cost of public services consumed by a migrant

		£
A	Total spend per capita	11,200
B	Total excluding public goods	9,100
C	Total excluding public goods and welfare	5,800
D	Total excluding public goods, welfare, health, education & social services	1,400
E	Total excluding public goods, health, education & social services	4,700

Source: based on National Population Projections 2010-based Statistical Bulletin, ONS, (2011) and Public Expenditure Statistical Analyses (PESA), HM Treasury, Table 5.2, (2011).

NIESR

NIESR (2011) were commissioned to provide an estimate of migrants' consumption of education, health and social service. Estimates have been produced for all migrants, defined as those born outside of the UK, according to their key characteristics, on the assumption that age is the most powerful characteristic that drives consumption of public expenditure. NIESR estimated the proportion of the population that are migrants in each of the migrant groups of interest using the Annual Population Survey (APS). The APS identifies families, including children living at home. For some migrant groups, NIESR have given a narrow and broad definition¹ which will allow the creation of a range of costs for each type of migrant.

¹ In the narrow definitions, migrants are included if they cannot be included in any other group. For example, economic migrants include those working in the UK but only if they are not as full time student or if their partner's status could not allow them to work. The broad definition

The population estimates were combined with PESA data for 2009/10 to estimate consumption per individual. These figures have been uplifted to 2011/12 prices using the change in public expenditure since 2009/10. These estimates can be added to the wider estimates (D and E) described above to give an overall estimate for cost to the public services per migrant in the UK.

Health

The evidence in the literature concludes that migrants in general are unlikely to pose a disproportionate burden on health services. There is strong evidence for lower impacts for Tier 1 and 2 work migrants, who are generally young and healthy. Expenditure on healthcare is much higher for elderly adults. NIESR base their estimates on the proportion of migrants and non migrants in the population, their gender and age, meaning estimates for migrants are lower than those for the non migrant population.

Education

The literature is unclear on the impact of migration on the provision of education. The main negative impacts concern children with poor English language skills and pupils arriving or leaving mid year. On the other hand, there is evidence of a positive relationship between children with English as an additional language and attainment. These data suggest that consumption exceeds non migrant groups for some migrants groups. This is the case for economic migrants, primarily due to larger family sizes, but not for Tier 4 migrants due to low volumes of accompanying children.

Social Services

There is little evidence on migrants' use of social services, and most skilled migrants and students will be unlikely to make many demands. This would not be the case for family migrants, from poorer backgrounds, or asylum seekers necessarily, although evidence suggests there is a lack of awareness and thus use amongst these groups. However, demand may increase over time. Estimates have been adjusted by the age of migrant groups and suggest that on average use of social services by the migrant population is much lower than for non migrants.

Table C.2 sets out the overall costs for public service consumption used in this IA. These consist of the values suggested by NIESR for health, education and social services expenditure uplifted to 2011/12 prices and estimate E given in Table C.1. Estimate E is used as it is appropriate to include welfare payments as the applicants affected by these fee increases would otherwise have reached settlement in the UK.

Table C.2 – Aggregate costs for health, education and social services

	£ per head - Min	£ per head - Central Estimate	£ per head - Max
Whole population	5,190	6,840	8,490
Non-migrants	5,240	6,890	8,540
All migrants	5,050	6,700	8,350
Migrant in last 10 years	4,520	6,170	7,820
Migrant in last 5 years	4,250	4,250	4,250
Tier 1 or 2	4,360	6,010	7,660
Tier 4	4,060	5,710	7,360

Source – NIESR (2011) based on APS analysis and Public Expenditure Statistical Analyses (PESA), HM Treasury, Table 5.2, (2009). Uplifted to 2011/12 prices.

The values in Table C.2 can be used to quantify the impacts on public expenditure of marginal changes in the level of migrants arriving or remaining in the UK. The estimates used in the cost benefit analysis for Tiers 1, 2 and 4 visas are as outlined in Table C.2. The estimate for Tier 5 visas is based on the *Migrants in the last 5 years* value, and estimate for Family visas is based on the *All migrants* value. Over the medium to long-run, it is expected that the migrant's pattern of consumption of service will converge to that of a UK resident.

includes all migrants who may be in each category. For example, all employed migrants are treated as economic migrants regardless of their student or partner's status.

Annex D: Displacement Assumptions

Displacement

Labour market displacement occurs when employment opportunities in the UK that could be filled by UK natives (UK born or UK nationals) are instead filled by migrants (foreign born or foreign nationals). The Government commissioned the Migration Advisory Committee (MAC) to analyse the impact of displacement on the UK labour market, culminating in a report² in January 2012. This annex sets out how the reports finding have been applied in this impact assessment.

The assumptions that are used in this Impact Assessment, and described below, reflect the current Home Office position and are not a cross-Government consensus.

Rate of Displacement

This IA uses displacement assumptions derived from MAC (2012), which sought to estimate the association between migration and the native employment rate in Great Britain, between 1975 and 2010, using the Labour Force Survey. Natives were defined as UK-born individuals. The headline result, and that which is used in this IA, suggests that a one-off increase of 100 in the inflow of working-age non-EU born migrants is associated with a reduction in native employment of 23 people (this is based on analysis of data spanning 1995 to 2010). The MAC report implies that this result holds in all periods, including both economic growth and contraction (further analysis suggests the reduction in native employment from an inflow of foreign-born working-age migrants may be higher in years when the output gap was zero or negative). Essentially, this suggests that upon entering the country, 23 per cent of immigrants (as defined) could take up employment that would otherwise have gone to those who are UK-born.

Length of Displacement

In implementing the volume of displacement, a key consideration is the tentative association in MAC (2012) that only those migrants who have been in the UK for less than 5 years are associated with displacement, not those who have been in the UK for over five years. Practically, this is not directly applicable to IA's, which show impacts annually. Therefore, without further evidence to suggest otherwise, displacement is assumed to diminish equally each year over a five year period, for each particular cohort of migrants. It is also assumed that those who choose to leave the UK instead of extending their leave may have already spent a period of time here and may be associated with a lower level of displacement. However, the length of time here is not known. It is assumed that migrants would have been in the UK for between 0 and 5 years.

Displacement by Cohort

It is important to note that this tracking over time of displacement is measured per cohort of immigrants. In any year that there is an inflow of migrants, these are classed as one cohort specific to that year (or any other time period being analysed). The following year, there will be another inflow of migrants, and whilst these add to the existing stock of migrants, they are an individual cohort specific to year 2. When displacement is measured over time, it is done so per cohort. This means that moving from one year to the next, there will be a new cohort arriving, but the previous year's cohort will have its own diminishing effects still occurring.

Illustrative Example

This can be seen in Table D1, which sets out a very basic approach as an illustrative example to analysing the impact of displacement, over time, per cohort:

Working through Table D1: each year, from year 1 through to year 6, sees a number of workers entering the UK; the number of workers entering in year 1 (200) belong to cohort year t (t reflects a cohorts first year); so looking **only** at year 2, the number entering in year 2 (300) belong to cohort year t (as this is their first year), and the cohort which entered in year 1 become part of cohort t-1; in year 3, those who entered in year 2 will become part of cohort year t-1, and those who entered in year 1 will become part of cohort year t-2; as the effect of displacement declines over time, a particular years cohort will displace

² MAC (2012) Analysis of the impacts of migration.

fewer UK natives as that cohort progresses through time; so the 200 migrants in year 1 will displace 46 natives in year 1, 37 in year 2, 28 in year 3, 18 in year 4, 9 in year 5, and 0 in year 6.

Table D1: Illustrative Example of the Impact of Displacement

Immigrants per year						
Cohort Year = t	1	2	3	4	5	6
T	200	300	250	600	400	200
t-1		200	300	250	600	400
t-2			200	300	250	600
t-3				200	300	250
t-4					200	300
t-5						200
Assumed Displacement per year (%)						
Cohort Year = t	1	2	3	4	5	6
T	23%	23%	23%	23%	23%	23%
t-1		18%	18%	18%	18%	18%
t-2			14%	14%	14%	14%
t-3				9%	9%	9%
t-4					5%	5%
t-5						0%
Assumed Displacement per year (number of people)						
Cohort Year = t	1	2	3	4	5	6
T	46	69	58	138	92	46
t-1		37	55	46	110	74
t-2			28	41	35	83
t-3				18	28	23
t-4					9	14
t-5						0

NB – volumes are purely illustrative.

Replacement

Whilst the above outline of displacement is considered to be a cost, a benefit would arise if measuring the impact of migrants leaving the UK. This is known as a *replacement* effect. MAC (2012) tentatively suggests that any reduction in native employment associated with migrant inflows is equal to an increase in a native employment associated with equivalent migrant outflows.

Application to this IA

The policy changes considered in this IA result in both a reduced inflow of migrants, and an increased outflow of migrants currently residing in the UK. Thus there will be the occurrence of replacement. The assumption is that from the number of immigrants that leave the UK that were employed, 23 per cent of the employment vacated will be filled by UK natives.

Table D2 outlines how the replacement methodology is applied to this IA:

Table D2: Replacement Applied

	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
	0	1	2	3	4	5	6	7	8	9
Volumes deterred from arriving or leaving the UK	1,480	480	480	480	1,480	480	1,480	1,480	1,480	1,480
Increased employment	300	540	700	800	850	850	850	850	850	850

Table D2 outlines the volumes deterred from coming to the UK or leaving the UK each year. The increased employment for UK residents as a result takes into account the replacement rate of 23 per cent and also factors in the diminishing rate of replacement each year for cohorts from the previous years – this is progressively cumulative, as recall that cohorts from previous years have an impact that declines over time. In other words, 23 per cent of employment vacated by outgoing migrants in a particular year will be filled by natives; the following years will see some more natives taking up employment vacated by that particular cohort of leaving migrants, but at a reduced rate. Overall, this results in increased employment for UK residents.