

Title: Regulating migrant access to health services in the UK IA No: HO0186 Lead department or agency: Home Office Other departments or agencies: Department of Health	Impact Assessment (IA)		
	Date: 28/01/2015		
	Stage: Final		
	Source of intervention: Domestic		
	Type of measure: Secondary legislation		
Contact for enquiries: Tim Woodhouse, Immigration and Border Policy Directorate, Home Office, 2 Marsham Street, London SW1P 4DF			

Summary: Intervention and Options	RPC Opinion: Not Applicable
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Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Measure qualifies as Two-Out?
£1,626m	£N/A	£N/A	No NA

What is the problem under consideration? Why is government intervention necessary?

The rules governing migrant access to the UK's publicly funded healthcare services are overly generous when compared to those of other countries and are inconsistent with wider government policy that those subject to immigration control should have access to public benefits commensurate with their immigration status. Temporary migrants are currently able to access free NHS care immediately or soon after arrival in the UK. Government intervention is necessary to better regulate non-EEA migrant access to publicly funded healthcare services in the UK.

What are the policy objectives and the intended effects?

The objective of this policy 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 a form of access to healthcare commensurate with their immigration status.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Option 1: Do Nothing
Option 2: Implement immigration health surcharge. The surcharge is to be set at around £150 per annum for Tier 4 visa applicants and £200 per annum for other visa applicants that are chargeable under this policy. Dependants will be charged the same amount as the main applicant.

Option 2 is the preferred option for the reasons set out in the impact assessment.

Will the policy be reviewed? It will be reviewed. If applicable, set review date: 2 years after enactment					
Does implementation go beyond minimum EU requirements?				N/A	
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.		Micro Yes/No	< 20 Yes/No	Small Yes/No	Medium Yes/No
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)		Traded:		Non-traded:	

I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed by the responsible Minister: James Brokenshire Date: 28/01/2015

Summary: Analysis & Evidence

Policy Option 2

Description: Implement immigration health surcharge

FULL ECONOMIC ASSESSMENT

Price Base Year 15/16	PV Base Year 15/16	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: 976	High: 2,252	Best Estimate: 1,626

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	5	9	78
High	5	85	720
Best Estimate	5	40	294

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

Loss in revenue to Home Office (HO) due to fewer applications – around £7 million (PV).
 Administration costs for the HO – around £45 million (PV).
 Impacts on the Exchequer – around £155 million (PV).
 Impacts on the Higher Education Sector – around £40 million (PV).
 Administration costs for the NHS – around £7 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	N/A	123	1,055
High	N/A	356	2,972
Best Estimate	N/A	229	1,920

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

Income to Government from an immigration health surcharge - around £1.7 billion (PV)
 Reduction to public service and welfare provision – around £172 million (PV)
 Increased employment opportunities for UK residents – around £29 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
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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 to the UK. Consequently, section 38 of the Immigration Act 2014 provides the Secretary of State for the Home Department with a power, by Order, to require certain migrants to pay an immigration health charge.

In October 2013 the Government published an impact assessment (IA) setting out its proposals to regulate migrant access to UK health services². This document is an update to that IA.

The estimated income from the surcharge (based solely on the number of grants and the duration of the visa length) is presented below in Table 1. These have changed from the previous IA for the following reasons:

- (i) Higher volumes (in particular In-country volumes) this is reflected in the visa grant statistics
- (ii) New evidence on length of visa length incorporated into the estimate (sourced from Home Office's Management Information data)
- (iii) Differences in the countries included.

The method and caveats around these figures are set out in Sections E and F of this IA. It is important to note that these numbers are based on historical data (2013/14 visa volumes) and should therefore be treated as high level and estimates only. Surcharge revenue may be affected by a number of factors not accounted for in this document, such as changes to average length of leave or to visa volumes. The IA does not fully replicate the final administration of the surcharge, which is still subject to discussion. Here we

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 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/251972/Health_impact_assessment.pdf

consider the possible behavioural impact of the surcharge – the potential impact on visa applications due to the surcharge.

Table 1: Breakdown of Surcharge Income; Central Estimates					
Surcharge			Out of Country^b	In Country	Total
Tier 1	£200	Volumes Granted	10,400	36,300	
		Expected Decrease in Grants	30	50	
		New Volumes Granted	10,370	36,250	
		Average Length of Grant	2.6	2.7	
		Surcharge Income	£5m	£20m	£25m
Tier 2^a	£200	Volumes Granted	23,500	46,000	
		Expected Decrease in Grants	50	60	
		New Volumes Granted	23,450	45,940	
		Average Length of Grant	2.8	2.6	
		Surcharge Income	£13m	£24m	£37m
Tier 4	£150	Volumes Granted	183,900	100,500	
		Expected Decrease in Grants	510	240	
		New Volumes Granted	183,390	100,260	
		Average Length of Grant	2.1	1.8	
		Surcharge Income	£58m	£27m	£85m
Tier 5	£200	Volumes Granted	17,600	1,400	
		Expected Decrease in Grants	170	10	
		New Volumes Granted	17,430	1,390	
		Average Length of Grant	1.5	1.1	
		Surcharge Income	£5m	£0m	£5m
Family	£200	Volumes Granted	40,200	34,200	
		Expected Decrease in Grants	170	140	
		New Volumes Granted	40,030	34,060	
		Average Length of Grant	2.9	2.4	
		Surcharge Income	£23m	£16m	£40m
Other^c	£200	Volumes Granted	2,800	3,600	
		Expected Decrease in Grants	10	10	
		New Volumes Granted	2,790	3,590	
		Average Length of Grant	3.3	2.2	
		Surcharge Income	£2m	£2m	£3m
TOTAL SURCHARGE INCOME					£195m
Source: HO Estimates					
Notes: Numbers rounded to the nearest million and may not sum due to rounding					
Excludes grants from Australian and New Zealand nationals and British Overseas Territories Citizens resident in the Falkland Islands (22,000 Out of Country and 3,600 In Country).					
a) Excludes ICT grants					

- | |
|---|
| b) Excludes grants for less than 6 months.
c) Includes other non-PBS workers, UK ancestry. |
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A.2 Groups Affected

This policy will affect most non-EEA temporary migrants in non-visitor immigration categories who apply for a time-limited entry clearance or limited leave to remain of more than 6 months. Those applying for permanent residence (indefinite leave to enter or remain) will not be affected. Non-EEA temporary migrants (subject to certain exceptions) will be required to contribute to the NHS in a manner commensurate with their immigration status, through payment of an immigration health surcharge (referred to in legislation as an immigration health ‘charge’)..

The surcharge will not be applied to a limited number of immigration categories. These categories will be set out in secondary legislation and include:

- A person making an application for leave to remain as a victim of human trafficking.
- Those seeking and those granted limited leave to remain under immigration rules dealing with asylum, temporary protection or humanitarian protection³.
- Children in local authority care who are making an immigration application.
- Applications for a Tier 2 Intra-Company Transfer (ICT) visa.
- Non-EEA family members of EEA nationals exercising treaty rights in the UK.
- Those exempt from immigration control, such as accredited foreign diplomats
- Migrants who, because of the terms of a reciprocal healthcare agreement between their country and the UK, will be entitled to healthcare in the UK without payment of the surcharge when it is introduced. These are British Overseas Territories Citizens resident in the Falkland Islands, and nationals of Australia and New Zealand.

The Secretary of State for the Home Department will also have the power to waive the surcharge where there are exceptional reasons to do so. The surcharge will not apply to short term visitors and those non-EEA nationals without lawful immigration status, who will continue as now to be fully liable to any NHS treatment charges for those classed as overseas visitors when accessing secondary care hospital services.

The Home Office will collect the surcharge as part of its visa and immigration application process from all eligible temporary non-EEA migrants coming to the country on a reserved UK-wide basis. The proceeds from the surcharge will be allocated directly to the NHS in each of the four nations of the United Kingdom, with distribution calculated on the basis of the Barnett Formula. The Home Office will continue to offer support to the NHS across the UK in confirming to them the immigration status of patients to inform the NHS provider’s assessment of if charges apply.

A.3 Consultation

Within Government

Extensive discussions have been held within Government. Surcharge policy was discussed and developed by the Inter-Ministerial Group on Migrant Access to Benefits and Public Services.

Public Consultation

On 3 July 2013, the Home Office published its consultation document ‘*Controlling Immigration – Regulating Migrant Access to Health Services in the UK*’ which sought public views on proposals for action in immigration legislation to better regulate migrant access to free NHS services. The consultation, which ran for eight weeks, closed on 28 August 2013. The consultation document was available online to the public and notification of the consultation was emailed to more than 1,100 stakeholders registered with the Home Office as having a particular interest in immigration,

³ Part 11 of the Immigration Rules <http://www.ukba.homeoffice.gov.uk/policyandlaw/immigrationlaw/immigrationrules/part11B/>

including businesses and organisations. In tandem with the Home Office consultation - which focused on the case for UK-wide action under immigration powers - and to the same timescale, the Department of Health published a separate consultation setting out its proposals for reforming the way in which overseas visitors are charged for NHS services in England⁴. Given the overlap in focus between the two consultations, the Department of Health's document necessarily contained some of the questions from the Home Office consultation and responses to these were shared with and taken into account by the Home Office.

Following careful consideration of the responses to the consultation document, the Government published its response on 22 October 2013. This response can be accessed here - https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256352/Health_Consultation_Response_For_Publication.pdf

B. Rationale

There has been 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 is overly generous. Underlining these concerns, the Department of Health published, in 2013, the findings of a comprehensive study into migrant use of the NHS. The study estimated the total cost of EEA and non-EEA visitors and temporary migrants accessing NHS services in England alone to be between £1.9 billion and £2 billion per year. This generosity is not sustainable in the current economic climate.

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 make significant contributions to the UK economy and society over the long term of their stay. 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 a correspondingly minimal entitlement to support from public services.

The present rules governing migrant access to the NHS do not reflect this policy and are inconsistent 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. The NHS is a national health service not an international health service.

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.

⁴ Sustaining services, ensuring fairness. A consultation on migrant access and their financial contribution to NHS provision in England. Published by the Department of Health on 3 July 2013.

The new qualifying test will render approximately 500,400 applicants each year potentially chargeable for NHS care. The Government is however, mindful of the need to ensure that the UK remains attractive to migrants who contribute positively to economic growth. Rather than introduce a requirement that all chargeable migrants purchase private health insurance, which might in some cases be prohibitively expensive (for example, for those with pre-existing medical conditions) and exclude cover for certain health treatments, the Government plans to introduce an immigration health surcharge that migrants will be required to pay when making an immigration application.

We intend that surcharge payers will receive comprehensive NHS care in the same manner as a permanent resident, i.e. they will only pay charges that a UK resident would also be expected to pay, such as dentistry charges. The surcharge will consequently be considerably cheaper for individuals than private health insurance whilst providing more comprehensive healthcare coverage. Most existing private insurance policies do not provide a satisfactory level of coverage for our purposes as they are supplemental to NHS care, relying on the NHS to provide cover for certain conditions as well as emergency care. To meet our requirements, insurance companies would need to develop new insurance packages capable of providing comprehensive private insurance that covered all eventualities, including maternity and emergency care. Anecdotal evidence from discussions with the insurance industry suggests this could cost the migrant around £3,000 per year in insurance premiums. The Government has instead opted for the fairer approach of requiring temporary migrants to pay the surcharge as a financial contribution towards their healthcare needs. The average working age adult costs the NHS over £700 annually in healthcare provision.

The detail of who will be exempt from the immigration health surcharge, the level of the surcharge and the arrangements for paying and refunding of the surcharge will be set out in an Order made under section 38 of the Immigration Act 2014. We expect to set the surcharge rate at £200 pa per individual. Students will benefit from a reduced surcharge rate of £150pa. 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. Dependants will be charged the same rate as their main applicant.

Visitors and illegal migrants will not pay a surcharge. They will remain, as now, chargeable for their healthcare. The surcharge does not make any changes to NHS structures, or remove the ability of the Department of Health or devolved health ministries to exempt certain groups or treatments from overseas visitor charging on health grounds.

C. Objectives

The objective of this policy 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 a form of access to healthcare 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 – i.e. most migrants granted leave to enter or remain for more than 6 months will receive free NHS care.

Option 2 is to implement the immigration health surcharge.

The previous Impact Assessment, published in October 2013, set out the case for the surcharge. Since publication of that impact assessment, the Immigration Act 2014 has provided the Secretary of State for the Home Department with a power, by Order, to require certain migrants to pay an immigration health charge. That Order will set out the detail of how the surcharge will operate, including the amount of the charge, exemptions and consequences of failure to pay it. We expect also to publish more information, in due course, that explains in more detail how the surcharge will work. An overview of how we envisage the surcharge working is set out below.

- In future, 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 the surcharge will be a precondition of entry and stay and must be paid in full at the time of application – the payment will reflect the full length of leave granted. This would mean a student coming for three years would pay three times the annual surcharge rate at the time of their application.
- We expect to set the surcharge rate at £200 pa per individual. Students will benefit from a reduced surcharge rate of £150pa. Dependants will be charged the same rate as their main applicant. Where leave granted includes part of a year, the amount payable will be calculated on a pro rata basis, rounded up to the nearest six month increment.
- The surcharge will be refunded where an application for leave to enter or remain is refused or rejected. The surcharge will not be refunded where the migrant returns home earlier than planned, does not use the NHS whilst in the UK or where their leave is curtailed.
- Certain categories of person making applications for temporary leave, will be exempt from paying the immigration health surcharge (see section on groups affected by the surcharge).
- It is our intention that payment of the surcharge will allow chargeable migrants access to NHS services in much the same way as a permanent resident – they will only be charged for services that a permanent resident would also be expected to pay for.
- Short term visitors and illegal migrants will not pay the surcharge. They will remain, as now, liable for NHS treatment charges applied by the devolved health administrations, subject to existing exemptions.

Identifying the Preferred Immigration Health Surcharge for Migrants

The immigration health surcharge will be priced at £200 per year for all main applicants and dependants except for Tier 4 main applicants and dependants who will pay £150. Tier 2 ICT main and dependant applicants will be exempt from the surcharge. The reasons for setting the surcharge at this amount have been set out in the previous IA⁵.

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/251972/Health_impact_assessment.pdf

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 of paying the health surcharge. It does include the subsequent income to the UK Government.

Assumptions and Data

This IA covers a 10 year period from 2015/16, in line with guidance from the Better Regulation Executive (BRE). The Immigration Act obtained Royal Assent in May 2014. We propose to implement the scheme outlined in this IA from Spring 2015. The IA assumes that implementation will occur in 2015. 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 data and assumptions used to quantify the impacts of the policy changes.

- All costs and benefits are compared against the 'Do Nothing' (Option 1) case.
- The immigration health surcharge will be applied to immigration applications for temporary leave in non-visitor routes - main and dependent – including Tier 1, Tier 2 (excluding ICT migrants), Tier 4 and Tier 5 applicants, as well as family applications and those that apply under 'UK ancestry', 'Other non-PBS employment' and 'Private Life'. This would affect all new out of country applications for leave lengths greater than 6 months and all in country applications except those from countries with which a relevant bilateral healthcare arrangement exists.
- Due to the terms of reciprocal healthcare arrangements with Australia and New Zealand, and a commitment to treat eligible residents of the Falkland Islands as if they were UK residents,⁶ Australian and New Zealand nationals and British Overseas Territories Citizens resident in the Falkland Islands will not be subject to payment of the health surcharge when it is introduced.
- The surcharge will be paid upon application and will be paid up front. The total amount payable will be dependent on the length of the entry clearance or leave to remain granted. For example, if entry clearance is granted for 3 years, the migrant would have to pay the annual surcharge amount multiplied by three, that is, £600.
- The surcharge payment will be pro-rata upwards on a 6 month basis. For example, if entry clearance is granted for 14 months, the migrant would pay the equivalent surcharge for 18 months, therefore £300.
- Volumes of applications and grants for Tier 1 general and post study routes have been included in the calculations for this IA. Although these visa routes are closed or will be closing, it is assumed that at least a proportion of these will instead apply under different routes. As the Home Office does not forecast the proportion of who will change routes, the volumes are included.

⁶ Note that the list of countries with which a reciprocal arrangement exists is not yet finalised.

- It is possible that there may be an increase in applications before the surcharge comes into force in order to avoid paying the surcharge. However, internal Home Office analysis is not able to determine with confidence whether this is likely or the potential effects.

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 2 and 3 below show application and grant volumes, both out of country and in country, for 2013/14 (excluding ICT applications and grants, Australian and New Zealand nationals and British Overseas Territories Citizens resident in the Falkland Islands and those out of country with leave granted for less than 6 months). The estimated duration of stay by each visa category is also shown in Table 4 (also excluding those exempt). As the payment of the health surcharge is to be pro-rated upwards to 6 months, the estimated lengths of leave granted have been calculated to reflect this. 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^b	In Country	TOTAL
Tier 1	13,400	52,700	66,100
Tier 2^a	25,100	48,000	73,100
Tier 4	200,600	111,600	312,200
Tier 5	18,900	1,600	20,500
Family	52,300	53,800	106,100
Other^c	3,000	4,500	7,500
TOTAL	313,300	272,200	585,500

Source: HO
Notes:
Numbers may not sum due to rounding.
Excludes applications from Australian and New Zealand nationals and British Overseas Territories Citizens resident in the Falkland Islands (23,000 Out of Country and 4,300 In Country applications).
a) Excludes ICT applications.
b) Excludes applications for less than 6 months.
c) Includes other non-PBS workers, UK ancestry.

	Out of Country^b	In Country	TOTAL
Tier 1	10,400	36,300	46,700
Tier 2^a	23,500	46,000	69,500
Tier 4	183,900	100,500	284,400
Tier 5	17,600	1,400	19,000
Family	40,200	34,200	74,400
Other^c	2,800	3,600	6,400
TOTAL	278,400	222,000	500,400

Source: HO Analysis
Notes:
Numbers may not sum due to rounding.
Excludes those grants from Australian and New Zealand nationals and British Overseas Territories Citizens resident in the Falkland Islands (22,000 Out of Country and 3,600 In Country).
d) Excludes ICT grants
e) Excludes grants for less than 6 months.
f) Includes other non-PBS workers, UK ancestry.

Table 4: Estimated Duration of Leave Granted (years) (Average of Main & Dependant)		
	Out of Country^a	In Country
Tier 1	2.6	2.7
Tier 2	2.8	2.6
Tier 4	2.1	1.8
Tier 5	1.5	1.1
Family	2.9	2.4
Other^b	3.3	2.2

Source: Home Office Analysis, Management Information Data.

Notes:

Duration of stay for in-country is the average additional length granted.

As payment is to be pro-rated upwards to 6 months, the lengths of leave granted have been estimated to reflect this.

a) Excludes grants for less than 6 months.

b) Includes other non-PBS workers, UK ancestry.

The Home Office has monitored the impact of visa fee changes on 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 routes⁷. The latest literature review was undertaken in 2010 and further details of the studies used can be found at 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. However, 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.

⁷ The surcharge is a larger increase than previous changes made to visa fees. Therefore, it is assumed in the central and high case scenarios that the surcharge might have an impact on visa demand.

- 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, Family and Other, 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 5 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 those exempt).

Table 5: Average Application Fee (Average Unit Cost of Processing an Application in brackets)			
<i>£ per application</i>		Out of Country	In Country
Tier 1	Main	871 (301)	1092 (360)
	Dependant	871 (301)	1092 (360)
Tier 2^a	Main	514 (212)	601 (230)
	Dependant	514 (212)	601 (230)
Tier 4	Main	310 (249)	422 (243)
	Dependant	310 (249)	422 (243)
Tier 5	Main	208 (161)	208 (227)
	Dependant	208 (161)	208 (227)
Family	Main	289 (167)	601 (287)
	Dependant	885 (416)	601 (287)
Other^b	All	885 (416)	601 (287)

Source: Home Office Analysis
Notes:
All figures in 2014/15 prices.
a) Excludes ICT migrants
b) Includes other non-PBS workers, UK ancestry.

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 will continue.

Option 2 – Implement the health surcharge.

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 costs to Government of administering this scheme. 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 behavioural 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 summarise 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 6 sets out the estimated change in grants (excluding those migrants exempt).

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 2015/16 and the impacts of this are assumed to apply equally in each year throughout the 10 year appraisal period.

Table 6: Changes in Volumes of Visa Grants						
		Visa Applications 2013/14^c	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	13,400	2.6	-0.5	0.6%	30
	Tier 2^a	25,100	2.8	-0.5	0.4%	50
	Tier 4	200,600	2.1	-0.5	0.5%	510
	Tier 5	18,900	1.5	-0.5	1.9%	170
	Family	52,300	2.9	-0.5	0.8%	170
	Other^b	3,000	3.3	-0.5	0.9%	10
In Country	Tier 1	52,700	2.7	-0.5	0.6%	50
	Tier 2^a	48,000	2.6	-0.5	0.4%	60
	Tier 4	111,600	1.8	-0.5	0.6%	240
	Tier 5	1,600	1.1	-0.5	1.9%	10
	Family	53,800	2.4	-0.5	0.9%	140
	Other^b	4,500	2.2	-0.5	0.9%	10
TOTAL						1,460
Source: HO Analysis						
Notes:						
Numbers may not sum due to rounding.						
*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						
b) Includes other non-PBS workers, UK ancestry.						
c) Excludes applications from exempt countries and also out of country applications for less than 6 months.						

Costs

DIRECT COSTS

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 would need to be updated. The UK Visa and Immigration (UKVI) Directorate estimate these costs to be around £5 million (one-off) in 2015/16 prices. 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 NHS – Staff would require training/familiarisation time as a result of the new rules and surcharge processes. It is assumed that this cost would relate to the Overseas Visitors Manager (OVM) or equivalent who would be trained and would then distribute information to the rest of the staff as per normal processes.

It is assumed this would take 1.5 hours per OVM. It is estimated there are approximately 1.5 OVMs per trust with an average salary of approximately £45,500 (including on costs) in 2013/14 prices. As there are 160 Trusts in England, the estimated familiarisation cost is therefore

approximately £8,700⁸ (£0.009m) (one-off) in 2015/16 prices. The costs for the rest of the UK are not known.

Administration costs for the NHS – Under the do nothing option (current situation), it is the responsibility of NHS frontline staff and OVMs to identify whether a patient is chargeable in the system. This process would continue when the surcharge is implemented. Frontline staff would be required to identify those individuals who are covered by the surcharge.

The Department of Health (DH) estimates that around 15 per cent of those covered by the surcharge would use the secondary care services in the NHS on an annual basis. This is based on UK resident population use of secondary care services (aged 15-64). The additional costs would involve identification, estimated to take 5 minutes. There would be no recovery of income or follow up required once the patient had been identified.

The estimated Daily Equivalent Population (DEP) of temporary migrants is 1.3 million⁹, a 15 per cent use would account for 194,000 individuals. Identification cost per patient is estimated to be approximately £3.85¹⁰ in 2013/14 prices which would equate to a total estimated cost relating to the identification of surcharge payees of £775,000 per year¹¹ (around £7 million in PV over 10 years) in 2015/16 prices.

Administration costs for the Home Office – The cost of additional administrative work involved per application includes costs such as checking whether migrants are subject to the surcharge, confirming payments, issuing refunds, requesting underpayments, processing overpayments and dealing with cases which go to appeal. As the cost per application includes verifying whether the application is from an exempt national, to calculate the total administration costs for the Home Office, the per application cost is multiplied by the total number of applications including those from countries with which a reciprocal arrangement exists minus those discouraged from applying. Using internal Home Office calculations, this cost has been estimated to be around £5 million per year (£45 million in PV over 10 years) in 2015/16 prices. This is subject to significant uncertainties and is a high level estimate with further work required to refine it, therefore it is subject to change.

Cost of paying commission on surcharge income (Public Sector) – Around 90 per cent of visa fees are collected via a third party private company who charge a commission for this service. It is assumed that this would be the case for the income raised from the surcharge. This is estimated to be around £4.2 million per annum (around £36 million in PV over 10 years) in 2015/16 prices. This is a high level estimate and further work is required to refine it, and therefore it is subject to change.

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 due to the surcharge. The estimated number deterred is set out in Table 6. It is estimated that Home Office revenue could fall by almost £900,000 per year¹² in 2015/16 prices (around £7 million in PV over 10 years).

INDIRECT COSTS

⁸ (1.5 OVMs per trust * 160 trusts * 1.5 hours * £22.38 per hour)

⁹ Table 6, sum of Temporary Migrants, Non-EEA Temporary Migrants and Non-EEA students, *Quantitative Assessment of Visitor and Migrant Use of the NHS in England*

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/254200/Quantitative_Assessment_of_Visitor_and_Migrant_Use_of_the_NHS_in_England_-_Exploring_the_Data_-_SUMMARY_2_pdf.pdf

¹⁰ Department of Health

¹¹ (£3.85 * 194,000): (Identification cost per patient * estimated usage)

¹² (1,700 * current application fee): For example, the impact for Out of Country Tier 1 applicants would be (40 * £871)

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 £10,800 per annum for Tier 5, to £46,600 per annum for a Tier 2 migrant in 2015/16 prices. Table 7 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 £18 million per year¹³ (around £155 million in PV over 10 years) in 2015/16 prices.

Table 7: Exchequer Impacts from Reduction in Fiscal Contributions			
<i>£ per year, per migrant</i>		Out of Country	In Country
Tier 1	Main	12,800	12,800
	Dependant	2,900	2,900
Tier 2^a	Main	17,500	17,500
	Dependant	2,900	2,900
Tier 4	Main	3,200	3,200
	Dependant	2,900	2,900
Tier 5	Main	4,300	4,300
	Dependant	2,900	2,900
Family	Main	2,900	2,900
	Dependant	2,900	9,700
Other^b	All	2,900	2,900

Source: Home Office Analysis
Notes:
Fiscal contributions in 2015/16 prices.
a) Excludes ICT migrants.
b) Includes other non-PBS workers, UK ancestry.

Private/Third Sector Costs

Impacts on the Education Sector – Education institutions may lose international tuition fees from migrants who are deterred from applying for a visa as a result of the surcharge. However, it is assumed that non-EEA students would be replaced by a student from the UK or EEA given that the evidence suggests that on average, applications for higher education exceeds admissions¹⁴. This is a working assumption and further work is required to understand the true impact. Therefore, in the sensitivity analysis in Section F, under the low scenario, it is assumed there would be no loss to the higher education sector on the bases that places would be filled by other

¹³ (1,460 * Fiscal contribution) : For example, the impact for Out of Country Tier 1 grants would be (30 * £12,800)

¹⁴ UCAS End of Cycle Report 2014: <http://www.ucas.com/sites/default/files/2014-ucas-end-of-cycle-report.pdf> and *Exploring Student Demand for Postgraduate Study* (Department for Business (BIS)): https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/264115/bis-13-1319-exploring-student-demand-for-postgraduate-study.pdf

non-EEA students. Under the high scenario, it is assumed that places would not be replaced by non-EEA or UK/EEA students.

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 £13,870 per year per migrant¹⁵ in 2014/15 prices, this compares to an average tuition fee for UK/EEA citizens of around £7,350 per year¹⁶. The impact of this is estimated to be around £5 million per year¹⁷ (around £40 million in PV over 10 years) in 2015/16 prices.

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.

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 year¹⁸ (around £4 million in PV over 10 years) in 2015/16 prices.

Surcharge Income – The Exchequer would receive the income from the surcharge. This has been estimated to be around £195 million per year¹⁹ (over £1.679 billion in PV over 10 years) in 2015/16 prices.

Private Sector Benefits

Revenue from commission - Around 90 per cent of visa fees are collected via a third party private company who charge a commission for this service. It is assumed that this would be the case for the income raised from the surcharge. This is estimated to be around £4.2 million per annum (around £36 million in PV over 10 years) in 2015/16 prices. This is a high level estimate

¹⁵ HO Analysis

¹⁶ HO Analysis

¹⁷ (£ 6,520 * 750): (Difference in Non-EEA and UK tuition fees* decrease in Tier 4 Main applicant grants), uprated to 2015/16 prices using GDP deflator. This is a simplifying assumption, as the course length could be more than 1 year. However, using visa length as a proxy for course length would not be appropriate, as Tier 4 visas are typically granted for longer than the duration of the course.

¹⁸ (1,700 * processing cost): For example, the impact for Out of Country Tier 1 applications would be (40 * £301)

¹⁹ (500,400 grants * length of leave)

and further work is required to refine it, and therefore it is subject to change. It should be noted that although this a direct benefit to business, it is not in scope for one-in-two out (OITO) or the Regulatory Policy Committee (RPC) as the policy intent of the health surcharge is not to regulate business or third sector organisations.

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 8 shows the average unit costs for each type of migrant.

Table 8: Average Cost of Public Sector Spending including Education and Social Services	
£ per year, per migrant	
Tier 1	6,380
Tier 2^a	6,380
Tier 4	6,090
Tier 5	4,520
Other	6,410
Family	7,100

Source: Home Office Analysis
Notes:
Costs in 2015/16 prices.
Rounded to the nearest £10.
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 year²⁰ (around £172 million PV over 10 years) in 2015/16 prices.

There is an estimated net fiscal benefit of £17 million PV over 10 years in 2015/16 prices. This is calculated as the saving on public service spending minus the loss in fiscal contribution (exchequer impacts) (£172 million - £155 million).

Wider Economic Benefits

Increased employment opportunities for UK residents – Following the publication of the cross-Governmental report on *Impacts of migration on UK native employment: an analytical review of the evidence*²¹, Government analysts have been working on revised displacement assumptions. These assumptions have been tentatively set at 15 per cent for low-skilled workers when the economy is growing (ranging from 0 per cent to 30 per cent). That is, 100 additional non-EU migrants may cautiously be estimated to be associated with a reduction in employment of 15 low-skilled native workers during periods of normal economic conditions. The analysis also finds that during normal economic conditions, there is likely to be no displacement of skilled native workers by non-EU migrants. In this analysis, skilled workers are assumed to be those

²⁰ (Fall in grants * Length of Stay * Fiscal Costs) : For example, the impact for Out of Country Tier 1 main applicants would be (6 * 2.6 * 6,380)

²¹ Occasional Paper 109: *Impacts of migration on UK native employment: an analytical review of the evidence* available at: www.gov.uk/government/publications/impacts-of-migration-on-uk-native-employment-an-analytical-review-of-the-evidence

main applicants from Tiers 1 and 2, whilst all dependants and main applicant workers in other tiers are taken to be low skilled. This IA assumes that the inverse of this finding is valid when the number of non EEA migrants is reduced. It is assumed that this replacement occurs over three years for each years inflow of migrants. This is because the average length of leave granted is approximately three years for most visa routes. See Annex D for 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 200 and 1,500 additional jobs each year may be filled by a UK resident. The majority of 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 £3.4 million per year (around £29 million PV over 10 years) in 2015/16 prices.

Summary of costs and benefits

The costs and benefits as outlined above are summarised in Table 9, which also shows the sum of PV costs and PV benefits to generate the Net Present Value (NPV) for this option. It is important to note that these figures are best estimates for the costs and benefits relating to the health surcharge though there still remains a great deal of uncertainty.

The actual income may differ as it is influenced by many variables, thus the figures included in this IA should be considered as purely illustrative. Variables which could significantly affect the figures include volumes of applications and grants and the length of leave granted.

Table 9: Summary of Costs and Benefits			
	One-Off	Annual Average	Total (PV)
Costs			
NHS Familiarisation Costs	*	-	*
HO Set-up Costs	£5m	-	£5m
NHS Admin Costs	-	£1m	£7m
HO Admin Costs	-	£5m	£45m
Cost of paying commission (Public Sector)	-	£4m	£36m
HO Loss in Revenue	-	£1m	£7m
Exchequer Impacts	-	£18m	£155m
Loss to Education Sector	-	£5m	£40m
Total	£5m	£34m	£294m
Benefits			
Savings on Processing Applications	-	£0m	£4m
Income to Government from Surcharge	-	£195m	£1,679m
Savings on Public Services	-	£20m	£172m
Revenue from commission (Private Sector)	-	£4m	£36m
Increased employment opportunities for UK residents	-	£3m	£29m
Total	-	£229m	£1,920m
NPV			£1,626m
Source: HO Analysis			
Notes:			
Numbers may not sum due to rounding			
Rounded to the nearest million with the exception of HO Admin costs which are rounded to nearest £5 million due to significant uncertainties.* Denotes a cost of less than £0.5 m			

F. Risks

The NPV in Table 9 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 length of leave granted, inclusion of Tier 1 General and Post Study routes and the elasticities. Under the low scenario, it is assumed all migrants both out of country and in country extensions are granted an 18 month visa. It also assumes low elasticities, that is, volumes are not affected by the assumed changes, so migrants are not deterred from applying. Finally, it is assumed that there are no applications and therefore no grants from those applying under the Tier 1 General or Post Study routes. In this scenario, there is a net benefit of around £976 million (PV) over 10 years in 2015/16 prices. This is based on a benefit of around £1,055 million (PV) over 10 years and a cost of around £78 million (PV) over 10 years, as outlined in Table 10.

Table 10: Summary of Costs and Benefits – Low Scenario			
	One-Off	Annual Average	Total (PV)
Costs			
NHS Familiarisation Costs	*	-	*
HO Set-up Costs	£5m	-	£5m
NHS Admin Costs	-	£1m	£7m
HO Admin Costs	-	£5m	£45m
Cost of paying commission (Public Sector)	-	£3m	£22m
HO Loss in Revenue	-	-	-
Exchequer Impacts	-	-	-
Loss to Education Sector	-	-	-
Total	£5m	£9m	£78m
Benefits			
Savings on Processing Applications	-	-	-
Income to Government from Surcharge	-	£120m	£1,032m
Savings on Public Services	-	-	-
Revenue from commission (Private Sector)	-	£3m	£22m
Increased employment opportunities for UK residents	-	-	-
Total	-	£123m	£1,055m
NPV			£976m
Source: HO Analysis			
Notes:			
Numbers may not sum due to rounding			
Rounded to the nearest million with the exception of HO Admin costs which are rounded to nearest £5 million due to significant uncertainties. * Denotes a cost of less than £0.5 m.			

Under the high scenario, it is assumed that all migrants (out of country and extensions) are granted a three year visa. High elasticities are also assumed; therefore volumes decrease to a greater extent than is assumed in the central estimates, so migrants are deterred to a greater extent. In addition, it is assumed that non-EEA students would not be replaced by other non-EEA

or UK/EEA students, therefore incurring a greater loss for the education sector compared to the central case. In this scenario, there is a net benefit of £2.3 billion (PV) over 10 years in 2015/16 prices. This is based on a benefit of around £3 billion (PV) over 10 years and a cost of around £720 million (PV) over 10 years, as outlined in Table 11.

Table 11: Summary of Costs and Benefits – High Scenario			
	One-Off	Annual Average	Total (PV)
Costs			
NHS Familiarisation Costs	*	-	*
HO Set-up Costs	£5m	-	£5m
NHS Admin Costs	-	£1m	£7m
HO Admin Costs	-	£5m	£45m
Cost of paying commission (Public Sector)	-	£6m	£48m
HO Loss in Revenue	-	£2m	£17m
Exchequer Impacts	-	£50m	£431m
Loss to Education Sector	-	£20m	£168m
Total	£5m	£84m	£720m
Benefits			
Savings on Processing Applications	-	£1m	£9m
Income to Government from Surcharge	-	£256m	£2,203m
Savings on Public Services	-	£74m	£636m
Revenue from commission (Private Sector)	-	£6m	£48m
Increased employment opportunities for UK residents	-	£9m	£76m
Total	-	£356m	£2,972m
NPV			£2,252m
Source: HO Analysis			
Notes:			
Numbers may not sum due to rounding			
Rounded to the nearest million with the exception of HO Admin costs which are rounded to nearest £5 million due to significant uncertainties. * Denotes a cost of less than £0.5 m.			

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. It also uses average length of leaves granted which are in most cases between one and three years. Consequently, the estimate of costs and benefits in the central scenario lie in between the estimates for the low and high scenarios.

Work has been carried out 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. Similarly, although average length of leave granted may vary, in the majority of cases it is unlikely to fall as low as one year or rise as high as three years for every visa granted.

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 generally result in an application being refused.

Some migrant categories, such as those on visit visas, as well as illegal migrants will not pay a surcharge. They will, as now, generally be chargeable for treatment they receive, subject to certain exceptions. The relevant NHS Trust will be responsible for identifying such patients and recovering any treatment costs as appropriate. The Home Office is working with the Department of Health to put in place arrangements for sharing data with the NHS about migrants who pay the immigration health surcharge, together with exempt groups who have an entitlement to free NHS services, to ensure that NHS administrators have instant access on their systems to the information they needs to determine a patient’s chargeable status.

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, normally refuse any further immigration applications from that migrant until the debt is repaid.

Where a 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.

Table H.1 Costs and Benefits		
Option	Costs	Benefits
2	£294 million (PV over 10 years)	£1,920 million (PV over 10 years)
Source: HO Estimates		

The Net Present Value calculation is therefore £1,626 million over 10 years. This equates to a reduction of approximately 1,460 visa grants in 2015/16, and in each year thereafter.

I. Implementation

The Government plans to implement these changes in Spring 2015.

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 performance of the policy will be monitored and measured against the objectives listed above and evaluated after full implementation. Parliament will be provided with an assessment of the income generated by the health surcharge after 1 year.

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

Elasticity	Justification	Products	Magnitude		
			Best case	Central	Worst case
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

Source	Estimate of wage elasticity of labour supply*	Measure
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, New Series, Vol. 45, No. 2. (Apr., 1993), pp. 269-291.</i>	Between +0.1 and -0.1	Wage elasticity of labour supply in the Canadian Labour Market
P. Bingley and G. Lanot, "The Incidence of Income Tax on Wages and Labour Supply", <i>National Centre for Register-based Research</i>	-0.4	Elasticity of labour supply in the Danish Labour Market

*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." American Economic Review, (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 (IA) assesses the impact on migrants' income and the fiscal impact on the UK. In line with the Migration Advisory Committee (MAC) report (2012)²², the Net Present Value (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 Home Office 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 July 2014 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 migrants²³. This was also updated using July 2014 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 2014/15 (both undergraduate and postgraduate).
- Tier 5 salary data was obtained from LFS 2014 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, 2014/15). The average contribution made according to income quintile is calculated for council tax. (ONS, 2014, The effect of taxes and benefits on household income 2012/13).

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 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.

²² MAC (2012) *Analysis of the Impacts of Migration*
(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/257235/analysis-of-the-impacts.pdf)

²³ (<http://www.HomeOffice.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/settlement-restrictions-workers/>).

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 those of the UK native population', 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 64.5 million individuals in the UK, from the ONS statistical bulletin of National population projections (2014). 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 £11,100 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 £11,100 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 C.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 £9,000 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 C.1 provides an estimated cost per person excluding public goods and welfare of £5,600 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 £1,500 per person, which excludes public goods and welfare expenditure as well as health, education and social services expenditure and estimate E of £4,900 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	11,500
B	Total excluding public goods	9,300
C	Total excluding public goods and welfare	5,800
D	Total excluding public goods, welfare, health, education & social services	1,500
E	Total excluding public goods, health, education & social services	5,000

Source: based on National Population Projections 2012-based Statistical Bulletin, ONS, (2013) and Public Expenditure Statistical Analyses (PESA), HM Treasury, Table 5.2, (2013). Costs in 2015/16 prices.

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.

The population estimates were combined with Public Expenditure Statistical Analyses (PESA) data for 2009/10 to estimate consumption per individual. These figures have been uplifted to 2014/15 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.

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 2013/14 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	5,540	7,300	9,050
Non-migrants	5,600	7,350	9,110
All migrants	5,350	7,100	8,860
Migrant in last 10 years	4,780	6,540	8,290
Migrant in last 5 years	4,520	4,520	4,520
Non-EEA Economic Migrant	4,650	6,410	8,160
Tier 1 or 2	4,620	6,380	8,130
Tier 4	4,340	6,090	7,850

Source – NIESR (2011) based on APS analysis and Public Expenditure Statistical Analyses (PESA), HM Treasury, Table 5.2, (2014). Uplifted to 2015/16 prices. NB: Rounded to nearest £10.

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 is based on the *Migrants in the last 5 years* value, estimate for 'Other' visas is based on the *Non-EEA Economic Migrant* value and the estimate for Family visas is based on the *All migrants*

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 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.

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.

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. Building on this, the Home Office and Department for Business, Innovation and Skills (BIS) published a review on the impacts of migration on UK native employment³. This annex sets out how these reports' findings have been applied in this impact assessment.

The assumptions that are used in this Impact Assessment, and described below, and have been tentatively agreed across government.

Rate of Displacement

This IA uses displacement assumptions building on those 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, 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 implied that this result holds in all periods, including both economic growth and contraction.

The further Home Office/BIS literature review concluded that:

- There is relatively little evidence that migration has caused statistically significant displacement of UK natives from the labour market in periods when the economy is strong.
- However, in line with some recent studies, there is evidence of some labour market displacement, particularly by non-EU migrants in recent years when the economy was in recession. This is consistent with the idea that labour market adjustment is slower during a recession, and with wider international evidence.
- Displacement effects are more likely to be identified in periods when net migration volumes are high, rather than when volumes are low – so analyses that focus on data prior to 2000 are less likely to find any impacts.
- There has been little evidence so far in the literature of a statistically significant impact from EU migration on native employment, although significant EU migration is still a relatively recent phenomenon and this does not imply that impacts do not occur in some circumstances.
- Where displacement effects are observed, these tend to be concentrated on lower skilled natives.
- The evidence also suggests that where there has been a displacement effect from a particular cohort of migrants, this is likely to dissipate over time – that is, any displacement impacts from one set of new arrivals will gradually decline.
- The review also suggests that the nature of the available empirical data makes it difficult to reach definitive conclusions with regard to displacement, but at present, and notwithstanding the various caveats, the most reliable data set for assessing these changes remains the LFS.

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

³ Occasional Paper 109 *Impacts of migration on UK native employment: an analytical review of the evidence* available at:

www.gov.uk/government/publications/impacts-of-migration-on-uk-native-employment-an-analytical-review-of-the-evidence

Further analysis has led to the working assumption that an inflow of 100 low skilled working-age migrants could displace 15 native workers from employment (15% of such migrants take jobs that would otherwise have gone to native workers) and that 100 high skilled migrants are not likely to displace any native workers from employment.

Table D.1 below lists the full set of displacement assumptions currently used in Home Office analyses.

Table D.1 – Tentative displacement rate assumptions for different migrants in different economic circumstances

Time Period	Migrant Type	IA Scenario		
		Lower bound	Best estimate	Upper bound
In an economic downturn	Skilled workers	Zero (0%)	Low (0%)	Low (10%)
	Lower skilled workers	Low (10%)	Medium (30%)	High (50%)
In an economic upturn	Skilled workers	Zero (0%)	Zero (0%)	Zero (0%)
	Lower skilled workers	Zero (0%)	Low (15%)	Medium (30%)

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, having already spent a period of time here, 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 D.2, which sets out a very basic approach as an illustrative example to analysing the impact of displacement, over time, per cohort:

Working through Table D.2: 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 fewer UK natives as that cohort progresses through time; so the 200 migrants in year 1 will displace 30 natives in year 1, 24 in year 2, 18 in year 3, 12 in year 4, 6 in year 5, and 0 in year 6.

Table D.2: 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	15%	15%	15%	15%	15%	15%
t-1		12%	12%	12%	12%	12%
t-2			9%	9%	9%	9%
t-3				6%	6%	6%
t-4					3%	3%
t-5						0%
Assumed Displacement per year (number of people)						
Cohort Year = t	1	2	3	4	5	6
T	30	45	37.5	90	60	30
t-1		24	36	30	72	48
t-2			18	27	22.5	54
t-3				12	18	15
t-4					6	9
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, 15 per cent of the employment vacated will be filled by UK natives.

Table D.3 outlines how the replacement methodology is applied to this IA:

Table D.3: 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	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460
Increased employment - UK residents	200	330	400	400	400	400	400	400	400	400

Table D.3 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 15 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, 15 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.