

Title: Impact Assessment for Immigration and Nationality (Fees) Regulations 2018 IA No: HO0310 RPC Reference No: N/A Lead department or agency: Home Office Other departments or agencies: N/A	Impact Assessment (IA)			
	Date: 21/02/2018			
	Stage: Final			
	Source of intervention: Domestic			
	Type of measure: Secondary Legislation			
Contact for enquiries: feesandincomeplanning.requests@homeoffice.gsi.gov.uk				
Summary: Intervention and Options			RPC Opinion: N/A	

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB in 2014 prices)	One-In, Three-Out	Business Impact Target Status
£159.2m	£0	£0	N/A	N/A

What is the problem under consideration? Why is government intervention necessary?
 Visa and immigration fees are set every year through Fee Regulations to ensure the Home Office achieves its financial objectives and to provide effective services to those who use them. To achieve a balanced budget in 2018/19, increases to most visa fees are required, although the changes are all set within the maximum levels set out in the Immigration Fees Order 2016. Changes to visa and immigration fees require secondary legislation to be introduced.

What are the policy objectives and the intended effects?
 The Government's policy objectives on visa and immigration fees are that:

- Those who use and benefit directly from the system (migrants, employers and educational institutions) contribute towards its costs, reducing the contribution of the taxpayer.
- The fees system is as simple as possible, aligning fees where entitlements are similar.
- Fees are set fairly, at a level that reflects the value of a successful application to those who use the service.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)
 Option 0 – Do nothing: no changes are introduced and visa fees remain at the 2017/18 level.
 Option 1 – Visa fees for 2018/19 are set as proposed under the central scenario (see Annex 1).

Option 1 is the Government's preferred option as it is expected to enable the Home Office to achieve a balanced budget for financial year 2018/19 and achieves the Home Office objectives for the visa and immigration system.

Will the policy be reviewed? Policy on fees and charges are reviewed as part of the ongoing internal review process. If applicable, set review date: N/A					
Does implementation go beyond minimum EU requirements?			N/A		
Are any of these organisations in scope?		Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: N/A	Non-traded: N/A	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: _____ Caroline Nokes _____ Date: _____ 15 March 2018 _____

Summary: Analysis & Evidence

Policy Option 1

Description: Option 1 – Introduce changes to visa fees in 2018/19

FULL ECONOMIC ASSESSMENT

Price Base Year 17/18	PV Base Year 18/19	Time Period Years 5	Net Benefit (Present Value (PV)) (£m)		
			Low: £130.5m	High: £187.8m	Best Estimate: £159.2m

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	N/A		£80.3m
High	N/A		£0m
Best Estimate	N/A		£39.7m

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

The identified direct costs of this option due to fee increases are:

- 1) UK Exchequer: Lost tax contribution from reduction in migrants entering the UK, £25.5m.
- 2) Home Office: Lower revenue due to lower application volumes from a fee increase £10.8m.
- 3) Education sector: lower tuition fee income, estimated to be £3.3m.
- 4) Department of Health: Lower revenue from the Immigration Health Surcharge of about £0.1m.

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

The monetised cost of migrant and visitor spending modelled in this IA covers the proportion of spending that accrues to the Government. There may be wider indirect costs to business, for example, deterred visitor spending, that are not monetised but are considered qualitatively.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	N/A		£210.8m
High	N/A		£187.8m
Best Estimate	N/A		£198.9m

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

The identified direct benefits of Option 1 are:

- 1) Home Office: Increased revenue from applicants who continue to apply, £187.8m and reduced processing costs from applicants who are deterred, £7.6m.
- 2) UK Exchequer: Savings from lower public service provision, £3.2m.
- 3) UK native workers: Increased employment (£0.3m)

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

Lower immigration to the UK may result in some wider benefits (improved social cohesion, reduced congestion in housing and transport costs). These impacts are not monetised in this IA and are expected to be small. Ensuring that more of the costs of the immigration system are met by those who are using and benefitting from the system will help increase public confidence in immigration control and the immigration system.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5%
--------------------------------------------	--------------------------	------

Baseline volumes for 2018/19 are based on Home Office internal forecasts as set out in Annex 2. Volumes data used in this IA may not match actual outturns in future published statistics. The impact of increases in visa fees on volumes is based on assumptions on price elasticity of demand for visas as set out in Annex 3. Elasticity effects are based on the change in fees against the expected income of the applicant over the expected duration of stay in the UK. Exchequer 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. The methodology used for the fiscal analysis is set out in Annex 4.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m: N/A
Costs: 0.0	Benefits: 0.0	Net: 0.0	

Evidence Base (for summary sheets)

A. Strategic overview

A.1 Background

The Government aims to achieve a self-funded immigration system by the end of the current spending review period in 2019/20, where the costs of front-line Border, Immigration and Citizenship operations are to be recovered through fees paid by those who use the system. Currently if fee income is insufficient to fund operating costs, the remainder of costs is met from general taxation. To ensure that the system is sustainable, the government believes it is fair that those who use and benefit directly from the UK migration system make an appropriate contribution to meeting its costs, thereby reducing the burden on UK tax payers.

The Immigration and Nationality (Fees) Order 2016 set out the maximum charges for visa fees and the over-arching fees framework. This Order came into effect in February 2016 and was intended to last for the duration of the current Spending Review period, that is, to 2019-20. Since implementation of the 2016 Order, a relatively small number of changes have been made through further secondary legislation to maintain the framework. The Government is now planning to introduce further fee increases for 2018-19 through 2018 Regulations. These increases are required to enable the Home Office to balance its final budget plans for 2018-19 and support its ambition for a Border, Immigration and Citizenship system (BICs) that is funded by those who use it. All fees will remain within the maximum levels set out in the 2016 Order.

The additional income generated will mean the Home Office can maintain or improve the services it provides to migrants, thus supporting economic growth, while reducing the contribution from general taxation.

Fee levels are set within strict financial limits and are agreed with HM Treasury and approved by Parliament. Fees are set in line with clear principles which balance a number of factors. In accordance with the Immigration Act 2014, these factors include the administrative costs of processing an application, the wider costs of the immigration system, and the benefits and entitlements of the product to a successful applicant. Other factors that may be used to set fees include the promotion of economic growth; comparable fees charged by other countries; and international agreements.

Within these criteria the Government aims to limit fee increases on the most economically beneficially sensitive routes in order to continue to attract those migrants and visitors who add significant value to the UK economy. Some fees are set above the cost of delivery, to reflect the value of the product or the wider costs of the immigration system. Some fees are set at above the cost of delivery to reflect the associated benefits and entitlements, and the related income contributes towards wider Immigration System costs. Some fees are also set at below cost where a lower fee supports wider government objectives (e.g. a lower short-term visit visa fee maintains international competitiveness and supports tourism). Some fees are charged at cost to reflect the cost of delivery (or unit cost). Optional, premium services, charged above cost, are offered to meet customer demands and to limit fee increases in other areas.

Significant efficiency savings are being made within the immigration system, to ensure that the Home Office continues to deliver a value for money service. It is appropriate that any remaining shortfall should be met by those who use and benefit from the service.

A.2 Groups affected

All migrants wishing to come to or remain in the UK, for the purpose of visit, work, study, family, settlement, marriage or other reasons are required to pay the appropriate fee associated with their visa application and will be the main group affected by the fees increases.

Groups affected by changes in visa fees include:

- In-country and overseas Points Based System (PBS) applicants and their dependants (spouses, partners and children).
- Main applicants and dependants applying for nationality.
- Short term (up to 6 months) and long term visit visas (for multiple entries to the UK over two, five or 10 years).
- Applicants applying for indefinite leave to remain.
- Users of optional premium services that provide an alternative to the standard service (quicker decisions, faster/alternative border processing, consideration at alternative premises etc.).

While the fees paid by UK businesses (such as sponsorship costs) are not expected to increase, the option may indirectly affect UK businesses if migrant workers are deterred from entering or remaining in the UK. However the UK's visa offer remains internationally competitive.

A.3 Consultation

At the end of 2013 the Home Office undertook a targeted consultation on charging principles in support of the framework set out in the Immigration Act 2014, which was approved by Parliament. Immigration and nationality fees continue to be set within this framework.

Fee proposals are assessed in the context of broader government objectives by officials from all relevant government departments. They consider a range of factors including the UK's attractiveness in key markets (such as tourism, business, and education) to ensure a balance is maintained between keeping fees at fair and sustainable levels and the Home Office's need to recover its operating costs in order to achieve a self-funding system. The proposals contained in this impact assessment (IA) have been agreed in principle with other government departments.

B. Rationale

The Home Office wishes to ensure that the fees it charges for nationality and immigration services are set at appropriate levels to contribute adequately towards the costs of running the BICs.

The financial constraints on public spending mean the Home Office needs to continue to keep fees under review to ensure sufficient revenue is generated to fully support the BICs, maintain public confidence, and ensure that migration is managed for the benefit of the UK.

C. Policy objectives

The Government's policy objectives on charging for immigration are that:

- Those who use and benefit directly from the BICs (migrants, employers and educational institutions) contribute towards its costs, reducing the contribution of the taxpayer.
- The fees system is simplified where possible, aligning fees where entitlements are similar.
- The fees are set fairly, at a level that reflects the real value of a successful application to those who use the service.

D. Options considered

Option 0 – Do nothing

Under the do nothing option visa fees would remain at their 2017/18 current level and not be increased. This option would fail to achieve the policy objective of achieving a self funded BICs as the Home Office would face financial pressures to achieve a balanced budget without the increase in visa fees.

Option 1 – Increase visa fees

Under Option 1 visa fees would be increased in 2018/19 through a balanced approach. The proposed visa fee increases are as follows:

- An increase of 4% on most routes (work, study, visit, nationality, settlement and other leave to remain).
- A rise of 15% on the expedited visa service for general entry clearance.

This IA considers the impact of the increases on all routes, with the exception of premium services, as these are offered to visa applicants as optional additional services, which are not subject to a formal analysis of impact.

E. Appraisal (Costs and Benefits)

The following section sets out the economic costs and benefits of the proposed changes to visa fees. The analysis produces a net present value (NPV) of increases in visa fees under Option 1 using central assumptions whilst also producing a range around this central scenario using high and low assumptions on the responsiveness of applicants to changes in visa fees.

The section on sensitivity analysis considers further ranges around the central estimate, and additional details on assumptions are provided in the Annexes.

An additional scenario is presented in Annex 2, which for comparison shows the impact of setting visa fees according to the Spending Review settlement using fee levels for 2018/19 as set out in the 2016 Fee Order IA¹. This scenario is shown for comparison only. It should be noted that results from the original IA differ from those presented in the current IA, as the data and assumptions used here have been updated (for example, volumes, salaries, grant rates, length of stay and appraisal period).

¹ <http://www.legislation.gov.uk/ukxi/2016/177/impacts>

E.1 General Assumptions and Data

1. Objective function

In line with previous Home Office analysis and following recommendations made by the Migration Advisory Committee (MAC)²; this IA considers the impact of the options on the welfare of the UK resident population. Besides the effect on government revenue and processing costs due to changes in visa fees, the NPV calculation includes the effect of changes in contributions to direct and indirect taxes, the effect on consumption of public services, on tuition fees paid by international students, and the effect on the labour market for the resident population where possible. Foregone migrant wages are not included in the NPV calculations in line with MAC recommendations, as the IA does not consider the impact on overall GDP.

As the MAC acknowledges, the resident population is not simple to define. In this IA, the resident population is considered to be UK nationals and migrants who apply for naturalization as British citizens.

2. Volumes

Future volume of applications for each visa product is based on Home Office internal planning assumptions for 2018/19. These are Home Office internal estimates of expected applications in 2018/19, without accounting for the changes in visa fees introduced by the Fee Regulations 2018 considered in this IA. These volumes are used as the baseline against which the impact of proposed changes in visa fees is assessed.

As the figures are based on Home Office internal estimates, they should be considered as indicative only due to the uncertainty around estimates of future visa applicants' behaviour. This IA assumes that volumes remain constant at the 2018/19 estimated level throughout the appraisal period of the policy.

Table 1: Estimated visa applications volumes for 2018/19.

Visa type	Baseline applications 2018/19 (planning assumption)
Out of Country	
Visit Visa	2,768,000
Settlement	2,000
Other	3,000
PBS Tier 1	5,000
PBS Tier 2	76,000
PBS Tier 4	241,000
PBS Tier 5	44,000
In Country	
Settlement	217,000
Other	74,000
PBS Tier 1	3,000
PBS Tier 2	26,000
PBS Tier 4	45,000
PBS Tier 5	2,000
Family Extension	122,000
Sponsor	361,000

Source: Home Office internal analysis.

² MAC; "Analysis of the Impact of Migration"; January 2012. <https://www.gov.uk/government/publications/analysis-of-the-impacts-of-migration>

3. Fee levels

This IA measures the impact of increasing fees as set out in Annex 1 (column entitled “Proposed Fee Regs 2018 Scenario”). Annex 1 also shows the most recent estimates of unit costs for each visa category.

4. Appraisal period

The estimates presented in this IA assume that fees remain at these levels for the following years and the policy is appraised for the following five years, in line with standard appraisal practice. The IA covers the period 2018/19 to 2022/23.

This should not however be interpreted as an indication of future level of visa fees beyond 2018/19, as these will be set year on year in future Fee Regulations.

5. Price elasticity of demand for visa

An increase in visa fees could deter some potential migrants from applying to enter or remain in the UK. The increase in visa fees could therefore have an impact on the number of visa applications received each year.

The IA applies estimates on the responsiveness of demand for visa to the expected change in visa fee (price elasticity of demand for visa products) and quantifies the impact that this has on the volume of visa applications for each visa product.

Home Office internal research has not found any evidence of a statistically significant relationship between changes in visa fees and the volume of applications for visa products. Absence of evidence does not necessarily imply there is no relationship, and therefore in order to avoid the risk of underestimating the impact of the changes, the analysis uses estimates of price elasticity of demand available from the academic literature developed in similar contexts as proxies for the price elasticity of demand for visa. This is considered to be a cautious approach.

The range of elasticities identified for each visa category has been used to produce a range of the NPV impact of the policy. The central scenario uses the elasticity estimates based on the academic literature; the low scenario assumes no response to the price increase and therefore that volumes remain unaffected; the high scenario assumes the elasticity estimates are higher than the central scenario.

Annex 3 provides a summary of the available literature and elasticity estimates used in the analysis in the low, central and high scenarios. Most of these assumptions are in line with those made in the 2016 Fee Order IA.

Workers’ visas (Supply of Labour) – The reduction in visa applications and therefore volumes of individuals entering or remaining in the UK for work-related reasons as a result of an increase in visa prices has been estimated by applying estimates of the wage elasticity of labour supply, which measures the responsiveness of the supply of labour to changes in wages, to the expected earnings over the duration of the visa. An increase in visa fee is treated as equivalent to a reduction in the expected earnings over the duration of the visa period. The central scenario assumes a small reduction in the willingness to supply labour as a result of changes in visa fees, applying an elasticity of -0.5. The low scenario assumes a zero response to the change in wage and the high scenario uses an elasticity of -1.1. The wide range used as sensitivity reflects the available evidence and the uncertainty around the central estimates.

Settlement and Nationality visas (Supply of Labour) – For settlement and nationality applicants, price sensitivity is assumed to be similar to that of migrants supplying labour. The

majority of applicants to settlement and nationality visa become eligible to apply to these visas after living in the UK for over five years; it is likely that they have been in work or wanting to work. Therefore the same elasticity assumptions used for workers' visa have been used for these types of visa both for the central case and for the sensitivities on the low and high scenarios. However, while the central scenario assumes an elasticity of -0.5, it is possible that the true elasticity for these applicants is closer to zero. This may be due to a number of reasons; eligibility to these visa require investing a long time living in the UK; applying for settlement or nationality suggests an intention in remaining in the UK for the long term, and in addition, these visa allow for a lifetime of access to the UK labour market and the associated wages. Therefore, it is likely that the responsiveness to a small change in a one-off visa fee would be minimal. For these reasons, it is important to note here that the elasticity of -0.5 may overstate the responsiveness of an applicant to a fees change.

Dependants' visa – For out-of-country applicants, the elasticity estimates are assumed to be the same as for the main applicant to the visa. For in-country dependant applications, the central scenario assumes no price sensitivity of visa demand; this is to capture the fact that migrants who are already in the country with family members may be less sensitive to changes in fees. The assumption is applied only on dependants and not on main applicants because the analysis does not separate main applicants with and without dependants. The high scenario assumes an elasticity of -0.5 based upon the central estimates for worker's visa, to reflect the chance that some applications could potentially be deterred.

For the three categories above (workers' visa; settlement and nationality visa; respective dependants' visa) the proposed increase in visa fees are applied to the expected earnings over the duration of the visa giving the proportional reduction in expected earnings. The elasticity estimates are then applied to this proportional reduction and the baseline volumes, giving the estimated reduction in application volumes due to the increase in fees. Expected earnings are assumed to grow in line with the OBR's forecast for growth in wages and salaries over the appraisal period. Historic rates at which applications are granted are used to estimate the impact on grant volumes. For dependants, the elasticity is applied to the potential earnings of the main applicant over their expected duration of stay as the main applicant is expected to pay for the cost of the dependant's fee.

Students' visas (Demand for Higher Education) – demand for students' visa is driven by demand to access UK education. The reduction in applications to student's visa and therefore volumes of students entering the UK has been estimated using estimates of the price elasticity of demand for higher education, which measures the responsiveness of the demand for higher education due to changes in the cost of higher education. These estimates have been applied to the estimated overall costs of undertaking higher education in the UK. Estimates in the academic literature for the price elasticity of demand for higher education typically suggest a central estimate of around -0.5. Annex 3 provides further details on the sources.

The available evidence suggests that the number of international students in UK higher education institutions has increased since 2008/19, though the trend for non-EU students has varied between different years, and overall numbers have been stable since 2014/15. There is also limited evidence on the responsiveness of international students to changes in visa fees specifically, although some evidence suggests that ease of obtaining visa to study ranks fairly high among the factors that influence international students' decisions³. Therefore, in the central scenario, it is assumed that a central elasticity estimate of -0.5 is associated to increases in student fees, while the high scenario applies an elasticity of -1, and the low scenario applies an elasticity of zero. The impact assessment captures the first order impact on higher education institution in terms of number of international students that may be chose not to come or remain in the UK to study, it however does not model the second order impact on whether higher education institutions may replace such students by offering the places left vacant to other non-EU or UK/EU students.

³ https://www.hobsons.com/res/Whitepapers/23_Beyond_The_Data_Influencing_International_Student_Decision_Making.pdf

Visitors' visas (Demand for Air Travel) – The airfare elasticity of demand is the responsiveness of the demand for air travel to changes in the price of air travel. The IA uses estimates of this elasticity produced by the Department for Transport as a proxy for the price elasticity of demand for a visit to the UK. In order to estimate the reduction in visa demand as a result of the increase in visa price, as visitors are not generally assumed to derive an income from their visit, the change in the price of a visit visa has been applied to the typical airfare paid by visitors coming to the UK from visa-paying countries. The central scenario uses an elasticity estimate of -0.4, based on the DfT estimates⁴ of price elasticity of demand to changes in airfares for foreign leisure and business sectors. The low scenario uses an estimate of zero and the high scenario an estimate of -0.8, double the central case. The elasticity estimate has only been applied to the air fare cost, and not to the total cost of a visit to the UK, therefore the impact of changes in volumes in the central and high scenario could be overestimated.

E.2 Costs and benefits

The first direct impact of changes in fees and application of central elasticity assumptions is a reduction in visa applications and therefore visa granted. Most of the cost and benefits of the proposed policy arise as a consequence of the effect on volumes.

The following tables show the estimated effect of price elasticity of demand on visa applications and visa granted using central elasticity assumptions. As can be inferred from the tables, the proposed changes in visa fees are expected to have very small impacts on visa applications and visa granted. This is largely because the price of a visa is a small proportion of the expected income from coming or remaining to the UK for workers, or the cost of travel for visitors and the cost of education for students.

Table 2: Estimated reduction in out-of-country visa applications and visa granted

OUT OF COUNTRY	Baseline applications (planning assumption)	Estimated change in applications / grants vs baseline				
	2018/19	2018/19	2019/20	2020/21	2021/22	2022/23
Visit Visa	2,768,000	-13,100 / -11,500	-12,700 / -11,200	-12,200 / -10,800	-11,800 / -10,400	-11,500 / -10,200
Settlement	2,000	- / -	- / -	- / -	- / -	- / -
Other	3,000	10 / 10	10 / 10	10 / 10	10 / 10	10 / 10
PBS Tier 1	5,000	- / -	- / -	- / -	- / -	- / -
PBS Tier 2	76,000	-10 / -10	-10 / -10	-10 / -10	-10 / -10	-10 / -
PBS Tier 4	241,000	-20 / -20	-20 / -20	-20 / -20	-20 / -20	-20 / -20
PBS Tier 5	44,000	-10 / -10	-10 / -10	-10 / -10	-10 / -10	-10 / -10

Source: Home Office Analysis. Rounding: Baseline volumes rounded to the nearest 1,000; Visit Visa volumes rounded to the nearest 100; other volumes rounded to the nearest 10.

⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/223839/aviation-forecasts.pdf

Table 3: Estimated reduction in in-country visa applications and visa granted

IN COUNTRY	Baseline applications (planning assumption)	Estimated change in applications / grants vs baseline				
	2018/19	2018/19	2019/20	2020/21	2021/22	2022/23
Settlement	217,000	-10 / -10	-10 / -10	-10 / -	-10 / -	-10 / -
Other	74,000	- / -	- / -	- / -	- / -	- / -
PBS Tier 1	3,000	- / -	- / -	- / -	- / -	- / -
PBS Tier 2	26,000	-10 / -10	-10 / -10	-10 / -10	-10 / -10	-10 / -10
PBS Tier 4	45,000	-10 / -10	-10 / -10	-10 / -10	-10 / -10	-10 / -10
PBS Tier 5	2,000	- / -	- / -	- / -	- / -	- / -
Family Extension	122,000	-20 / -10	-20 / -10	-20 / -10	-20 / -10	-20 / -10
Sponsor	361,000	- / -	- / -	- / -	- / -	- / -

Source: Home Office Analysis. Rounding: Baseline volumes rounded to the nearest 1,000; Visit Visa volumes rounded to the nearest 100; other volumes rounded to the nearest 10.

1. Direct Costs

The main direct costs of changes in visa fees are a consequence of the reduction in applications and therefore visa granted, due to the impact of the price elasticity of demand for visa assumptions. The value of costs and benefits described in the following paragraphs are based on central assumptions on price elasticity of demand for visa.

A reduction in visa applications has an impact as a **loss to Home Office revenue** due to lost revenue from visa fee paid by applicants. Under the central case this is estimated to be -£10.8 million (PV, 2017/18 prices) over the five years appraisal period.

A reduction in visa applications would also result in a **loss of revenue to the Department of Health and Social Care**, due to a reduction in applicants paying the Immigration Health Surcharge (IHS), which is paid when the length of visa granted exceeds 6 months. Applicants for eligible visa categories are currently required to pay £100 for every 6 months of their visa duration. The cost is reduced to £75 per 6 months for students and Tier 5 (Youth Mobility Scheme). Under the central case, the lost revenue to the Department of Health is estimated to be £0.1 million (PV, 2017/18 prices) over the five years appraisal period.

The Government announced in February 2018 that it plans to double the IHS for all visa applicants eligible to pay it⁵. As the policy has not been implemented yet, this IA applies the current level of fees in its analysis of impacts. A separate IA will be produced to support the legislation on the IHS.

In the central scenario, the analysis also assumes that visa applications by international students also are affected, resulting in a **loss in tuition fee** income for the education sector. The impact is estimated to be £3.3 million (PV, 2017/18 prices) over the five year appraisal period. As the impact assessment does not make any assumptions on students' replacement, i.e. on the extent to which higher education institutions may offer the places left vacant to other non-EU or UK/EU students, this impact should be considered an upper estimate, as any students' replacement would mitigate the effect on lost tuition fee income.

2. Indirect Costs

A reduction in visa granted and therefore the number of migrants working in and visiting the UK would result in a **loss to the Exchequer** from fiscal contributions on direct and indirect taxes.

⁵ <https://www.gov.uk/government/news/health-charge-for-temporary-migrants-will-increase-to-400-a-year>

Annex 4 provides further details on how estimates of fiscal contributions are derived. Under the central scenario, the estimated loss to the Exchequer would be £25.5 million (PV, 2017/18 prices) over the five years appraisal period.

3. Direct Benefits

The increase in visa fee is expected to generate an **increase in Home Office revenue** from the applicants that continue to apply. This benefit is calculated as the change in visa fees times the volume of applicants. The estimated benefit to the Home Office from increased revenue is expected to be £187.8 million (PV, 2017/18 prices) over the five years appraisal period.

A reduction in visa applications is expected to result also in a **reduction in Home Office processing costs**. The estimated administrative saving is estimated to be £7.6 million (PV, 2017/18 prices) over the five years appraisal period. Unit costs of processing a visa application for 2017/18 are outlined in Annex 1. Unit costs are assumed to stay flat in nominal terms over the appraisal period as these costs are reviewed year-on-year and do not necessarily grow in line with inflation.

4. Indirect Benefits

The reduction the volume of migrants entering the UK or extending their visa, as a result of the elasticity effect on visa applications is expected to result in a **reduction in public expenditure** on public services as fewer people would use such services. The estimated savings in expenditure on public services are £3.2 million (PV, 2017/18 prices) over the five years appraisal period. Results are calculated by applying the unit cost on expenditure for public services for different types of migrant groups to the expected reduction in grant volumes due to the elasticity effect. Annex 4 provides further details on the methodology and assumptions used to estimate public expenditure costs per head.

The reduction in the volume of migrants entering the UK can have an impact also on the labour market by affecting the **employment opportunities of UK residents** where the migrants deterred from entering the country for employment reasons are replaced by UK residents. The Home Office makes the following assumptions about the impact of migration on the resident population:

- Native workers are not displaced by skilled migrants entering the country.
- For every 100 low skilled migrants entering the UK labour market, 15 native workers are expected to be displaced, although this effect is expected to dissipate over time and the displaced workers will be fully re-employed within 3 years.

These assumptions apply under normal economic conditions and during times of economic upturn and are based on a literature review of the impacts of migration on UK native employment published jointly by the Home Office and the Department for Business, Innovation and Skills.⁶ The central scenario assumes that for every 100 low-skilled migrants deterred from entering the UK each year of the appraisal period, 15 additional UK workers enter employment. Skill levels are inferred from visa application category and while some element of the displacement effect is expected to last from one year to the next, it is expected to diminish over time, having dissipated completely within 3 years. This impact is monetised by applying the median wage of visa applicants to the number of applicants deterred from entering or remaining in the UK each year of the appraisal period. Annex 5 provides further details on the findings regarding displacement effects and their application in this IA. The estimated benefit from employment opportunities to UK residents in the central scenario is estimated to be £0.3 million (PV, 2017/18 prices) over the five years appraisal period.

⁶Occasional 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

F. Summary of results

The results for the central scenario are summarised in the Table 4.

Table 4: Cost and benefits of preferred option under central assumptions

Present Values (2017/18 prices) £ million	2018/19	2019/20	2020/21	2021/22	2022/23	NPV
Benefits						
Revenue raised from fee changes	40.2	38.8	37.5	36.3	35.0	187.8
Saving to UKBA from processing fewer applications	1.7	1.6	1.5	1.4	1.3	7.6
Savings to UK due to lower public service provision	0.4	0.6	0.7	0.7	0.7	3.2
Increased employment opportunities for UK residents	0.0	0.1	0.1	0.1	0.1	0.3
Total benefits (PV)	42.4	41.2	39.9	38.5	37.1	198.9
Costs						
Loss of revenue from fewer applications as a result of the fee change	-2.5	-2.3	-2.2	-2.0	-1.9	-10.8
Exchequer loss from reduction in migrants coming to and remaining in the UK	-3.9	-5.6	-5.5	-5.3	-5.1	-25.5
Lower Revenue from the Immigration Health Surcharge	-0.0	-0.0	-0.0	-0.0	-0.0	-0.1
Lower tuition fee income	-0.5	-0.7	-0.7	-0.7	-0.7	-3.3
Total costs (PV)	-6.9	-8.6	-8.4	-8.0	-7.7	-39.7
Net Impact (PV)	35.4	32.5	31.4	30.4	29.4	159.2

Changes to the assumptions on price elasticity of demand for visa, keeping all others constant, produces a range around the NPV result for the central case of £130.5 million to £187.8 million (5 year PV, 2017/18 prices).

Under the low elasticity scenario, where applicants do not have any behavioural response to fee increases, the NPV of the policy increases to £187.8 million over the five years appraisal period. An increase of £28.6 million compared to the central case. Under the high scenario, where applicants have a stronger behavioural response to fees increase, compared to the central scenario, the NPV the policy reduces to £130.5 million. A decrease of £28.7 million compared to the central case.

Table 5 summarises the impact of changes in elasticity assumptions on the NPV of the policy, broken down by cost and benefits.

Table 5: NPV range under different elasticity assumptions

Present Values – Five years appraisal period (2017/18 prices) Price elasticity of visa demand assumptions	High elasticity / Low NPV	Central NPV	Low elasticity / High NPV
Benefits			
Revenue raised from fee changes	187.8	187.8	187.8
Saving to UKBA from processing fewer applications	15.1	7.6	-
Savings to UK due to lower public service provision	7.1	3.2	-
Increased employment opportunities for UK residents	0.8	0.3	-
Total benefits (PV)	210.8	198.9	187.8
Costs			
Loss of revenue from fewer applications as a result of the fee change	-21.7	-10.8	-
Exchequer loss from reduction in migrants coming to and remaining in the UK	-51.7	-25.5	-
Lower Revenue from the Immigration Health Surcharge	-0.3	-0.1	-
Lower tuition fee income	-6.6	-3.3	-
Total costs (PV)	-80.3	-39.7	-
Net impact (PV)	130.5	159.2	187.8

In country transfers

The IA measures the economic costs and benefits of changes in visa fees to the UK economy and UK residents. In this IA, in line with previous Home Office analysis, a migrant is considered a non-UK resident up to the point of application for naturalisation as British citizen, after that they are considered UK residents. The increased fees paid by visa applicants outside the UK and by non-UK resident in the UK feature in the NPV calculation as benefits to the UK, but the corresponding costs to the migrants themselves are not included.

However, increases in fees paid by applicants considered UK-residents, for example, nationality applicants, and increases in fees paid by businesses operating in the UK are regarded as a *transfer* payment; the fee is transferred from the applicant or business to the Home Office. This represents a cost to the applicant or business but a benefit to the Home Office. Transfer payments may change income or wealth distribution of the resident population, but do not give rise to direct economic costs and benefits, thus they are not counted in the NPV of the option considered.

Table 6: Transfer costs and benefits of preferred option under central assumptions

Present Values (2017/18 prices)	2018/19	2019/20	2020/21	2021/22	2022/23	NPV
Transfer benefits						
Increase in Home Office fee income from in-country applications (£m)	6.8	6.6	6.3	6.1	5.9	31.8
Saving to UK individuals from submission of fewer applications (£)	4,000	4,000	3,000	3,000	3,000	0.0
Saving to UK businesses from submission of fewer applications	-	-	-	-	-	-
Total transfer benefits	6.8	6.6	6.4	6.1	5.9	31.8
Transfer costs						
Loss in Home Office revenue from fewer in-country applications (£)	4,000	4,000	3,000	3,000	3,000	0.0
Increase in UK individuals' costs from continued applications (£m)	6.8	6.6	6.3	6.1	5.9	31.8
Increase in UK business' costs from continued applications	-	-	-	-	-	-
Total transfer costs	6.8	6.6	6.4	6.1	5.9	31.8
Net impact	0.0	0.0	0.0	0.0	0.0	0.0

Spending review settlement

The proposed level of visa fees for 2018/19 is different from the level originally agreed as part of the Spending Review settlement in 2016, which was set out in the 2016 Fee Order IA. Annex 1 shows the fee levels under the spending review scenario as set out in the 2016 Fee Order IA and Annex 2 shows the NPV of the policy should these fee levels have been adopted in 2018/19.

It should be noted that the data and assumptions used in this IA have been updated since the original modelling was developed in 2016, therefore the results are not directly comparable to the 2016 Fee Order IA. Data and assumptions that have been updated include volumes, length of stay, grant rates and salary estimates. This IA also appraises the policy over a different appraisal period starting in 2018/19 rather than 2016/17 and compares the proposed changes in fees to the current 2017/18 levels, rather than to the 2015/16 levels.

G. Sensitivity Analysis

This IA further builds on results for the central scenario to present sensitivity analysis. Fee levels and other assumptions are varied while holding all others constant, allowing the assessment of the impact that different assumptions have on the results in the central scenario.

Public Service Provision

This IA uses various estimates of the value of average public service consumption by migrants. The difference between the low and high scenario is the inclusion of pure public goods and welfare costs in the estimate, while the central case does not include pure public goods it does include half of the estimated welfare cost reflecting that migrants may not be eligible to receive welfare payments.

Keeping all other assumptions at their 'central scenario' level:

- Assuming public spending is at the 'Low' level, the NPV of the option falls to £157.2 million (5 year PV, 2017/18 prices). This sensitivity result implies that the Government saves less from the migrants that are deterred from entering or remaining in the UK. This saving reduces from £3.2 million in the central case to £1.2 million (5 years PV, 2017/18 prices) if the low assumptions are used.
- Assuming public spending is at the 'High' level, the net impact of fee changes increases to £160.9m (5 year PV, 2017/18 prices). This sensitivity result implies that the Government saves more from the migrants that are deterred from entering or remaining in the UK. This saving increases from £3.2m in the central case to £4.9m (5 years PV, 2017/18 prices) if high assumptions are used.

The difference in NPV between these two public spending levels is small in magnitude compared to the NPV of the policy. This can be attributed to the fee level increase having a relatively small effect on the volumes of migrants that are deterred from entering or remaining in the UK, to whom public service costs are applied.

Replacement

The proposed fee level in the central scenario is expected to have a small decrease in the volumes of granted applications for the subset of migrants to whom the displacement assumption is applied. Thus, varying the level of the displacement assumption between 'Low' and 'High' gives a narrow range of £159.0 million to £159.7 million for the net impact of fee changes (5 year PV, 2017/18 base).

Business costs due to changes to maximum sponsorship licence

The Fee Regulations 2018 do not propose to change the current sponsorship licence fee. Therefore this IA does not make further estimates on impact on businesses.

H. Proportionality approach

The analysis presented in this IA builds on the analysis produced for the 2016 Fee Order IA⁷. The analysis is largely based on the same methodology and assumptions, which have however been updated where possible.

While the 2016 Fee Order IA covered a full Spending Review period from 2016/17 to 2020/21, this IA only considers the proposed changes in the Fee Regulations applicable to 2018/19, and appraises them over a five year period in line with standard appraisal practice.

I. Wider impacts

There may be a number of wider impacts associated with changes in migration to the UK. A report by the Migration Advisory committee from 2012 on the 'Analysis on the Impact of Migration' recommends that, among others, key factors to consider when appraising migration policies are:

1. 'Dynamic effects' on the UK labour market and economy.
2. Impacts on employment and employability of UK workers.

⁷ <http://www.legislation.gov.uk/ukxi/2016/177/impacts>

3. The net public finance and public service impact of migrants.
4. Congestion impacts of migration, including impacts on transport networks and the housing market.

While the IA has made an attempt to quantify impacts on public finance and public service; and on employment of UK workers; wider impacts on dynamic effects and congestion impacts are not possible to quantify, as the MAC also acknowledges.

The expected reduction in volumes is relatively low with an expected average reduction over the appraisal period of around 11,000 and average earnings of around £1,000. The vast majority of such reduction in expected volumes is from applicants to visit visa. Therefore, the dynamic effects on the labour market and the impact on congestion is likely to be negligible and dependant on the characteristics of those deterred from entering the UK. With a total economic output around £11 million per year, even with multiplier effects on the economy, the non-quantifiable or monetized effects of the loss of these 11,000 migrants per year will not be of the same order of magnitude as the £159.8 million NPV of the quantified effects of the policy, so would not be expected to affect the conclusions drawn on the basis of these figures.

The proposed changes are expected to lead to a reduction in overseas visitors to the UK and therefore lower total spending by visitors. The quantification of the costs of this reduction in total visitor spending includes only the reduction in exchequer revenue as a result of lower indirect tax contributions. It should be noted that this quantification does not make further adjustments on VAT refunds that visitors from outside the European Union are entitled to, and therefore it is likely to be an overestimate⁸. Furthermore, the analysis does not include the loss spending elsewhere in the economy, this is because it visitors may spend on goods and services offered by foreign businesses operating in the UK as well as UK businesses. In the absence of further evidence on the extent to which visitors spending accrues to UK resident population, the IA does not monetise the effect that this forgone spending has on the resident population

J. Monitoring and review

The Home Office will closely monitor the impact of fees for the applications and services contained in these regulations. The Home Office reviews fees and charges for immigration and nationality applications annually. The Home Office also monitors application trends and officials from all relevant Government departments consider proposals to amend fee levels to ensure they do not adversely impact on the UK economy.

K. Summary and preferred option; with description of implementation plan

The preferred option is to introduce the proposed changes to visa fee as outlined in the central scenario under Option 1. These fee increases are planned to be introduced in April 2018 and expected to apply for the financial year 2018-19. Visa and immigration fees are subject to annual review and further changes will be set out in future Fees Regulations.

⁸ Non-EU nationals visiting the UK are entitled to VAT refunds under some circumstances <https://www.gov.uk/tax-on-shopping/taxfree-shopping>.

ANNEX 1 – Proposed visa fee changes
Table A1.1 – Out of country visa products, £.

OUT OF COUNTRY - Visa Products, £.	Estimated 2018/19 Unit Cost	Current visa fee (2017/18)	Proposed Fee Regs 2018 Scenario (2018/19 - 2022/23)	Spending Review Scenario (2018/19 - 2022/23)
Visit visa - short	130	89	93	91
Visit visa - long 2 year	130	337	350	344
Visit visa - long 5 year	130	612	636	624
Visit visa - long 10 year	130	767	798	782
Family route to settlement	388	1,464	1,523	1,410
Settlement - Dependant Relative	388	3,250	3,250	3,158
Settlement - Refugee Dependant Relative	388	423	388	521
Certificate of Entitlement	388	423	388	521
Other Visa	155	496	516	478
Transit Visa (Airside)	95	34	35	36
Transit Visa (Land Side)	95	62	64	65
Vignette Transfer Fee	155	169	154	208
Replacement BRP Overseas	155	169	155	208
Tier 1 – Entrepreneur, standard – Main	185	982	1,021	1,002
Tier 1 – Entrepreneur, standard –Dependant	185	982	1,021	1,002
Tier 1 – Investor, standard – Main	185	1,561	1,623	1,592
Tier 1 – Investor, standard – Dependant	185	1,561	1,623	1,592
Tier 1 - Exceptional Talent Postal - Main	185	585	608	597
Tier 1 - Exceptional Talent Postal - Deps	185	585	608	597
Tier 1 Graduate Entrepreneur Route - Main & Dependants	185	349	363	356
Tier 1 - General- Dependants	185	982	1,021	1,002
Tier 2 General, ICT – Long-Term Staff, Sport & MOR – main applicant	128	587	610	599
Tier 2 General, ICT – Long-Term Staff, Sport & MOR – dependants	128	587	610	599
Tier 2 ICT Short-Term Staff, Graduate Trainee or Skills Transfer – main applicant	128	463	482	472
Tier 2 ICT Short-Term Staff, Graduate Trainee or Skills Transfer – dependants	128	463	482	472
Tier 2 General, ICT over 3 years EC – Long term staff – main applicant	128	1,174	1,220	1,197
Tier 2 General, ICT over 3 years EC – Long term staff – dependants	128	1,174	1,220	1,197
Tier 2 – Shortage Occupations: Up to 3 years EC – main applicant	128	446	464	455
Tier 2 – Shortage Occupations: Up to 3 years EC – dependants	128	446	464	455
Tier 2 – Shortage Occupations: over 3 years EC – main applicant	128	892	928	908
Tier 2 – Shortage Occupations: over 3 years EC – dependants	128	892	928	908
Tier 4 - Main Apps	154	335	348	342
Tier 4 - Dependants	154	335	348	342
Short Term Student <12 Months Visa	130	179	186	188
Tier 5 Temp Work	116	235	244	240
Tier 5 YM	116	235	244	240
Tier 5 Dependants	116	235	244	240

Table A1.2 – In country visa products, £.

IN COUNTRY - Visa Products, £.	Estimated 2018/19 Unit Cost	Current visa fee (2017/18)	Proposed Fee Regs 2018 Scenario (2018/19 - 2022/23)	Spending Review Scenario (2018/19 - 2022/23)
Naturalisation (British Citizenship) (Single)	372	1,202	1,250	1,364
Naturalisation (UK Citizenship) Joint	372	1,202	1,250	1,364
Naturalisation (UK Citizenship) Spouse	372	1,202	1,250	1,364
Nationality (British Citizenship) Registration adult	372	1,083	1,126	1,228
Nationality (British Citizenship) Registration child	372	973	1,012	1,104
Renunciation of Nationality	372	321	372	300
Nationality Reissued Certificate	272	234	250	218
Nationality Right of Abode	372	321	372	300
Nationality Reconsiderations	372	321	372	300
Status / non acquisition letter (Nationality)	272	234	250	218
Nationality Correction to Certificate	272	234	250	218
ILR Postal - Main	243	2,297	2,389	2,213
ILR Postal - Deps	243	2,297	2,389	2,213
LTR Non Student Postal Main	142	993	1,033	957
LTR Non Student Postal Deps	142	993	1,033	957
Visitor Extension - main applicant	142	993	993	957
Visitor Extension - dependants	142	993	993	957
Transfer of Conditions Postal Main	162	168	161	246
Transfer of Conditions Postal Deps	162	168	161	246
No Time Limit Stamp - Postal Main	228	237	229	339
No Time Limit Stamp - Postal Deps	228	237	229	339
Travel Documents Adult (CoT)	416	267	280	218
Travel Documents Adult CTD	312	72	75	72
Travel Documents Child (CoT)	208	134	141	109
Travel Documents Child CTD	156	46	49	46
Replacement BRP	56	56	56	66
Employment LTR outside PBS Postal - Main	142	993	1,033	957
Employment LTR outside PBS Postal - Dependants	142	993	1,033	957
Tier 1 – Entrepreneur, standard – Main	126	1,228	1,277	1,253
Tier 1 – Entrepreneur, standard –Dependant	126	1,228	1,277	1,253
Tier 1 – Investor, standard – Main	126	1,561	1,623	1,592
Tier 1 – Investor, standard – Dependant	126	1,561	1,623	1,952
Tier 1 - Exceptional Talent Postal - Main	126	585	608	597
Tier 1 - Exceptional Talent Postal - Deps	126	585	608	597
Tier 1 - Graduate Entrpreneur Postal - Main	126	474	493	483
Tier 1 - Graduate Entrpreneur Postal - Deps	126	474	493	483
Tier 2 - Sport & MOR (In-UK) - main applicant	318	677	704	691
Tier 2 - Sport & MOR (In-UK) - dependants	318	677	704	691
Tier 2 - General (In-UK) - main applicant	318	677	704	691
Tier 2 - General (In-UK) - dependants	318	677	704	691
Tier 2 - ICT (In-UK) - main applicant	318	677	704	691
Tier 2 - ICT (In-UK) - dependants	318	677	704	691
Tier 2 ICT – Short term staff, Graduate Trainee or Skills Transfer standard – main applicant	318	463	482	472
Tier 2 ICT – Short term staff, Graduate Trainee or Skills Transfer standard – dependants	318	463	482	472
Tier 2 General, ICT over 3 years leave to remain – Long-Term Staff – main applicant	318	1,354	1,408	1,382
Tier 2 General, ICT over 3 years leave to remain – Long-Term Staff – dependants	318	1,354	1,408	1,382
Tier 2 – Shortage Occupations: Up to 3 years leave to remain – main applicant	318	446	464	455

Tier 2 – Shortage Occupations: Up to 3 years leave to remain – dependants	318	446	464	455
Tier 2 – Shortage Occupations: Over 3 years leave to remain – main applicant	318	892	928	908
Tier 2 – Shortage Occupations: Over 3 years leave to remain – dependants	318	892	928	908
Tier 4 - Postal Main	252	457	475	466
Tier 4 - Postal Deps	252	457	475	466
Tier 5 - Postal Main	318	235	244	240
Tier 5 - Postal Deps	318	235	244	240
Tier 4 - Permission to Change Course - No longer applicable from April 2018	-	-	-	-
Tier 2 Large Sponsor Licence	1,503	1,476	1,476	1,476
Tier 2 Small Sponsor Licence	1,503	536	536	536
Tier 4 Sponsor Licence	1,503	536	536	536
Tier 5 Sponsor Licence	1,503	536	536	536
Multiple Tier	1,503	940	940	940
Highly Trusted Sponsor Licence	1,503	536	536	536
Sponsor Action Plan	1,503	1,476	1,476	1,476
Tier 2 COS	225	199	199	199
Tier 5 COS	26	21	21	21
Tier 4 CAS	26	21	21	21
EEA1	217	65	65	65
EEA2	217	65	65	65
EEA3	217	65	65	65
EEA4	217	65	65	65

ANNEX 2 – Fee levels according to the Spending Review settlement 2015/16.

If visa fees had increased in 2018/19 in line with the spending review settlement agreed in 2015/16, the NPV of the policy would have £6.0 million (PV, 2017/18 prices) over the appraisal period of five years, compared to £159.2 million (PV) under the proposed preferred option. The main differences are driven by lower Home Office revenue from increases in visa fees.

The following table shows the breakdown of the NPV based on fee levels for 2018/19 set according to the Spending Review settlement set out in the 2016 Fee Order IA⁹.

It should be noted that the data and assumptions used in the current IA have been updated since the original modelling was developed in 2016, therefore results are not directly comparable to the 2016 Fee Order IA. Data and assumptions that have been updated include volumes, length of stay, grant rates and salary estimates. The current IA also appraises the policy over a different appraisal period starting in 2018/19 rather than 2016/17 and compares the proposed changes in fees to the current 2017/18 levels, rather than to the 2015/16 levels.

Table A2.1 – NPV based on 2018/19 fee levels set according to Spending Review settlement of 2015/16.

Present Values (2017/18 prices), £ million	2018/19	2019/20	2020/21	2021/22	2022/23	NPV
Benefits						
Revenue raised from fee changes	4.3	4.2	4.0	3.9	3.8	20.1
Saving to UKBA from processing fewer applications	0.9	0.9	0.8	0.8	0.7	4.2
Savings to UK due to lower public service provision	0.0	-0.0	-0.1	-0.1	-0.1	-0.4
Increased employment opportunities for UK residents	0.0	0.0	0.0	0.0	0.0	0.2
Total benefits (PV)	5.3	5.0	4.8	4.6	4.4	24.1
Costs						
Loss of revenue from fewer applications as a result of the fee change	-1.2	-1.2	-1.1	-1.0	-0.9	-5.4
Exchequer loss from reduction in migrants coming to and remaining in the UK	-1.9	-2.5	-2.3	-2.2	-2.1	-11.0
Lower Revenue from the Immigration Health Surcharge	0.0	0.0	0.0	0.0	0.0	0.0
Lower tuition fee income	-0.3	-0.4	-0.4	-0.4	-0.3	-1.7
Total costs (PV)	-3.4	-4.0	-3.8	-3.6	-3.4	-18.1
Net impact (PV)	1.9	1.0	1.0	1.0	1.0	6.0

⁹ <http://www.legislation.gov.uk/uksi/2016/177/impacts>

ANNEX 3 – Elasticity Assumptions

The following tables set out the elasticities used to analyse the impact of the changes in fees on different types of products. The following tables set out the academic papers from which these elasticities are taken. Elasticities used for dependent applications are not included in Table A3.1 as these were not derived from academic literature; rather, they were derived from Home Office analysis on the likely response by dependents from changes to dependent fees. Such responses were deemed to yield a best case and central elasticity of zero, and a worst case value of -0.5.

The term ‘elasticity’ measures the responsiveness of demand for a product after a change in a product’s own price. The elasticity assumption used here should be interpreted as the proportional decrease in visa applications (the demand) for a 1 per cent decrease in expected income over the total duration of the visa due to the increase in visa fee (the price). For example, if the increase in visa fee represents a 2 per cent decrease in total expected income and elasticity is assumed to be -0.5, then volumes would reduce by $-0.5 \times 2\% = -1\%$.

Table A3.1 Elasticities used to analyse the impact of changing fees

Elasticity	Justification	Products	Magnitude		
			Low	Central	High
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 2 General</i> visa, in-country, extensions; <i>Tier 2 SOC/ICT/Sports/MOR</i> visa, in-country, extensions; <i>Tier 5</i> Youth Mobility and Temporary Worker visa, in-country, extensions; associated out of country dependants	0	-0.5	-1.1
Wage elasticity of labour supply (dependants)	For in-country dependant applications, the central scenario assumes no price sensitivity of visa demand as applicants are already in the UK with their family member (the main migrant), but in the high scenario assumes sensitivity akin to that of workers in the central scenario	In-country dependants	0	0	-0.5
Wage elasticity of labour demand	Firms demand Home Office products in order to bring migrants to the UK to fill employment vacancies. The wage elasticity of labour <u>demand</u> is thus used to estimate the impact on volumes of the proposed fee changes for sponsorship.	Sponsor Action Plan; Tiers 2, 4 and 5 Certificates of Sponsorship; Sponsor Licences	0	-0.75	-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, Confirmations of Acceptance for Studies (CAS)	0	-0.5	-1
Price elasticity of demand for air travel	The airfare elasticity of demand is used as a proxy for price elasticity of demand for a trip to the UK.	Visit visa –all lengths;	0	-0.4	-0.8
		Transit visa	0	-0.7	-1.4
No evidence	For settlement and nationality applicants, price sensitivity is assumed to be similar to that of migrants supplying labour. The rationale is that the majority of applicants would have been in the UK over 5 years before being eligible to apply for ILR or nationality and hence may be more likely to be in or want to work.	Settlement visa; Settlement; Certificate of Entitlement; Transit Visa; Vignette Transfer Fee; Call-Out/Out of Hours Fee; Naturalisation; Nationality Registration; Renunciation of Nationality; Nationality Reissue Certificate; Nationality Right of Abode; Nationality Reconsiderations; Status Letter (Nationality); Non-acquisition Letter (Nationality); Indefinite Leave to Remain main applications; Leave to Remain non-student; Transfer of Conditions; Travel Documents; Residual Further Leave to Remain; Employment Leave to Remain outside PBS; Highly Trusted Sponsor Licence.	0	-0.5	-1.1

Table A3.2 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 Volume 91/1 Winter 2005</i> .	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 (NCRR), Version 5.002 31 October 2000</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 a 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 A3.3 Empirical studies of the price elasticity of demand for education

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

December, 1970.		
Hoenack, 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.

Table A3.4 Empirical studies of the wage elasticity of labour demand

Source	Estimate of wage elasticity of demand	Measure
The relationship between employment and wages. HMT, January 1985	Between -0.1 and -0.5	Econometric studies reviewed: elasticity of labour demand to changes in the real wage
David Metcalf (2004), "The impact of the National Minimum Wage on the Pay Distribution, Employment and Training," The Economic Journal, 114, March, C84-86.	-0.3	Elasticity of demand for labour in the first 5 years following introduction of the NMW in the UK.
Taeil Kim and Lowell Taylor (1995), "The employment effect in retail trade of California's 1988 minimum wage increase."	Between -0.7 and -0.9	Elasticity of demand for labour in California's retail trade.

Table A3.5: empirical studies for the airfare elasticity of demand

Source	Estimate of airfare elasticity of demand	Measure
UK Aviation Forecasts; Department for Transport; 2013.	-0.2 Foreign Business -0.6 Foreign Leisure -0.7 International to international airlines	Estimates of long run elasticities of air passengers with respect to airfares.

ANNEX 4 – Fiscal Impact of migration

Changes in the volume of migrants coming to live in the UK can be analysed also in terms of their fiscal impacts, by considering the fiscal revenue that one additional migrant contributes to in the economy and the portion of government spending on public services that s/he consumes. The Home Office has developed modelling to assess the fiscal impact of migration on fiscal spend and fiscal revenue.

- Fiscal spend is estimated by calculating costs per head for different types of public services accessible by non-UK nationals who come and live in the UK.
- Fiscal revenue considers the contributions to tax revenue, such as income tax, National Insurance, council tax, indirect tax etc.

The following sections outline in more details the methodology used for the two components of the analysis.

4.1 Fiscal spend analysis

The analysis is largely based on the same methodology used for the IA for the Fee Order 2016¹⁰ although it has been reviewed and updated where relevant. The analysis uses a top down approach to apportion total expenditure on public services at the individual level and derive unit costs per migrant status. The unit costs are then applied to the volume of applicants deterred from applying for a visa due to the price elasticity of demand for visa effect, and ultimately estimate the saving in public expenditure due to fewer people using public services.

Data

Data on expenditure on public services is obtained from Public Expenditure Statistical Analysis (PESA) published by HM Treasury, which provides data on public sector expenditure broken down by functions. The analysis is based on data for 2015/16¹¹ up rated with inflation and reported in 2017/18 prices¹².

Public sector expenditure in PESA is broken down into the following functions:

- General public services.
- Defence.
- Public order and safety.
- Economic affairs.
- Environment protection.
- Housing and community amenities.
- Health.
- Recreation, culture and religion.
- Education.
- Social protection.
- EU transactions.

Data on migrant population characteristics is obtained from the Annual Population Survey (APS) produced by the Office for National Statistics. APS data for 2015/16 is used to derive population characteristics such as volumes of existing residents by nationality and age distribution. When

¹⁰ See Annex 6 at <http://www.legislation.gov.uk/uksi/2016/177/impacts>

¹¹ See Chapter 5 at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/539465/PESA_2016_Publication.pdf

¹² Inflation assumptions based on GDP deflator December 2017. <https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-december-2017-quarterly-national-accounts>

using estimates of total UK population, the analysis uses ONS 2015¹³ data which is considered more accurate than APS.

Methodology

There are a number of different approaches to calculating fiscal impacts. The methodology used here tries to represent a 'marginal' approach to measuring the impact of migration and therefore makes a distinction between costs that do not vary with additional individuals moving to the UK or extending their stay; and costs that vary when an additional individual moves to the UK

The fiscal impacts included here are also those attributable from migrants – any transfers between for example between UK companies and the Exchequer are excluded, according to Green Book guidance and MAC recommendations on appraisal of migration policies.

Treatment of public goods

Goods and services that do not vary with an additional individual are known as public goods and are defined as 'non-rival' and 'non-excludable'. Non-rival means that the consumption of the good or service by one individual does not exhaust consumption of the same good or service by other individuals, for example once someone has walked through a park other people can still do the same. Non-excludable means that once the good or service is provided it is impossible to prevent individuals from consuming it, for example once street lighting is provided it is impossible to prevent individuals walking past to benefit from the light provided, regardless of whether they have contributed or not to the provision of the good or service.

This IA makes a further distinction between pure and congestible public goods or services. The classification of public goods and services as pure and congestible is uncertain and open to debate, the definition and classification used in this IA is based on Dustman & Frattini 2014¹⁴. Pure public goods are non rival and non excludable, and the additional cost of providing such goods or services to an individual is considered to be zero. This category includes for example expenditure on basic research, or on defence. Congestible public goods are to some extent rival in consumption, but the additional cost of providing such goods and services is unknown and expected to be smaller than average costs. This category includes for example expenditure on transport or waste management.

Based on the Dustman and Frattini 2014 classification of pure and congestible public goods, the Home Office has estimated the unit cost per person of such goods and services using PESA 2015/16 data for public expenditure divided by total population estimates. Data on total population estimates in this case has been based on ONS total population estimates for 2015¹⁵. Table A4.1 shows the results. While, at least in the short term, expenditure on pure public goods is not expected to vary with additional individuals, expenditure on congestible public goods is more likely to vary.

For the scenario analysis, the central and low scenario include only the unit cost for congestible public goods, to reflect the fact that these costs are more likely to vary in the short term with one additional individual. The high scenario includes estimates of both pure and congestible public good and services to reflect the fact that over time, a large increase in the population due to migration may as well lead to an increase in expenditure on these goods and services.

13

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesanalysis>

14 <http://www.cream-migration.org/files/FiscalEJ.pdf>

15

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesanalysis>

Table A4.1 Public good and services estimates, 2017/18 prices, £.

Public good and services estimates	(2017/18 prices)
Pure	1,500
Congestible	1,500

Source: Home Office analysis using PESA 2015/16 and APS 2015/16 data. Data updated with inflation. Figures are rounded to the nearest 100.

Treatment of all other public services

For those categories of expenditure where costs would change when an additional individual moves or stays in the country, but costs are considered to be shared equally across the population, public expenditure is apportioned to the total UK population to derive one single unit cost using ONS 2015 total population estimates. Examples include public expenditure on policy or housing development. Home Office estimates of unit costs for these public services is estimated at £500 per head in 2017/18 prices.

Treatment of public services: Health, Education and Social Services

In some cases, the consumption of public services is likely to vary by age, gender, family composition and other factors such as income and ethnicity, the migrants and the native population are not necessarily likely to exhibit identical patterns for all the categories of public service consumption.

APS 2015/16 data shows that around 60 per cent of non-EEA nationals living in the UK are aged between 20 and 44, compared to 30 per cent of UK nationals. Following a similar approach to the one used in the 2016 Fee Order IA¹⁶, this analysis estimates public service expenditure on health, education and social services by migrant status, adjusting for the age distribution of the migrant group.

Unit costs are calculated by apportioning PESA 2015/16 spend on education, health and social services to the proportion of non-EEA nationals by age group using APS 2015/16 data to identify the migrant population by migrant status such as worker, student or dependant.

For health estimates, unit costs are calculated based on OBR data on the proportion of total health spend by age group¹⁷ and then by weighting unit costs by the proportion of non-EEA nationals in each age group by migrant status. It is important to note that the estimates used in the central and high scenario only adjust for the age distribution of the non-EEA population, and do not make any further adjustments. For example no adjustment is made in the central and high scenario for use of service, which can be different between migrants and the native population. A further reduction of 40 per cent has been made to health unit costs in the low scenario, to reflect Department of Health internal analysis on lower use of service of the migrant population compared to UK population¹⁸.

For education and social services, unit costs are calculated by apportioning PESA 2015/16 spend to the proportion of non-EEA nationals by age categories, and then by calculating a unit cost by migrant status reflecting the non-EEA population in such group. Note that no education costs are assigned to workers and students. Non-EEA workers are by definition in the UK for employment reasons and therefore no spend on education services is apportioned to them, non-EEA students pay tuition fees set at a higher level than for UK and EEA students, and these are assumed to cover for the cost of their studies.

¹⁶ The methodology used in the 2016 Fee Order impact assessment was based on work by the National Institute for Economic and Social research 2011, available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/257236/impact-of-migration.pdf

¹⁷ OBR 2016; <http://budgetresponsibility.org.uk/fsr/fiscal-sustainability-analytical-papers-july-2016/>

¹⁸ Department of Health estimate on use of service is based on data on use of primary and secondary care by immigration health surcharge payers. The unit cost calculated in this analysis however covers wider types of services using PESA 2015/16 data on spend on Medical Services and Central and other health services.

The estimates used for education, health and social services unit costs are summarised in the Table A4.2 below.

Table A4.2 Education, health and social services unit costs, 2017/18 prices, £.

Health, Education, Social Services (2017/18 prices), £	Central and High Scenarios (£)	Low Scenario (£)
All migrants	2,900	2,300
All non-EEA migrants	2,700	2,100
Non-EEA More than 5 years	2,600	1,900
Non-EEA Less than 5 years	3,000	2,300
Non-EEA Economic migrant	1,800	1,200
Non-EEA Student	1,300	800
Non-EEA Dependant	1,700	1,200

The estimates are based on age distribution of non-EEA migrants using APS data by nationality and not by country of birth; they do not therefore include those long term migrants who have obtained British nationality as they are considered part of the resident population. The age distribution used in the analysis is therefore more skewed towards younger and working age individuals.

Treatment of public services: Welfare

Individuals subject to visa requirements are not eligible to access the welfare system for the first five years they live in the UK¹⁹. As the appraisal period of the analysis covers five years, welfare costs are only applied in the high scenario as sensitivity, as it is unlikely that the majority of migrants considered in the analysis is eligible for welfare payment.

The central scenario assigns half of welfare expenditure to all migrant categories, except for those who have been in the country for less than five years²⁰. This is to reflect the fact that the visa categories considered cover both new applicants and extensions and therefore it is possible that those who extend their visa may have been in the country long enough to be eligible for welfare payments.

The estimate used for welfare costs per person is based on PESA 2015/16 expenditure, weighted to reflect the working-age and pension-age splits of non-EEA nationals using APS 2015/16 data. The Home Office estimates this cost to be £2,500 per person in 2017/18 prices (2015/16 data has been uprated with inflation). It is important to note that this only takes into account the age distribution of the non-EEA population, and does not make any further adjustments. For example, there is no adjustment on the take-up of benefits by non-EEA nationals which may be different between migrants and the native population.

The estimate is also based on age distribution of non-EEA migrants using APS data by nationality and not by country of birth; it does not therefore include those long term migrants who have obtained British nationality as they are considered part of the resident population. The age distribution used in the analysis is therefore more skewed towards younger and working age individuals.

¹⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/639597/analysis-of-migrants-access-to-income-related-benefits.pdf

²⁰ In the absence of further evidence on the migrants' use of the welfare system over time, 50% of estimated welfare expenditure has been selected as an indicative assumptions, and it may not accurately reflect reality.

Results

In summary, the impact assessment makes the following assumptions in the low, central and high scenarios, as set out in Table A4.3.

Table A4.3 Summary assumptions used in the IA, 2017/18 prices, £.

Unit cost	2017/18 prices £	Scenario		
		Low	Central	High
Pure public good	1,500	-	-	Included
Congestible public good	1,500	-	Included	Included
Other public services	500	Included	Included	Included
Health, Education, Social Services	Varies	Included	Included	Included
Welfare	2,500	-	Included (half)	Included (full)

Table A4.4 shows the total unit cost used by migrant status in each scenario.

Table A4.4 Total unit cost used by migrant status in each scenario, 2017/18 prices, £.

Category (2017/18 prices)	Low	Central	High
All migrants	2,800	6,100	8,900
All non-EEA migrants	2,600	5,900	8,700
Migrant in last 10 years	2,400	5,800	8,600
Migrant in last 5 years	2,800	5,000	6,500
Economic migrant	1,700	5,000	7,800
Student	1,300	4,500	7,300
Dependant	1,700	4,900	7,700

4. 2 Fiscal revenue analysis

The analysis on fiscal revenue is also largely based on the same methodology used in the Fees Order 2016 impact assessment, although, just like the analyses on fiscal spend, it has been reviewed and updated where relevant. The model uses a bottom up approach to calculate the expected contribution to direct and indirect taxes from visa applicants. The results are applied to the volume of visa applicants deterred from applying due to the price elasticity effect on visa demand, as a consequence of the increase in visa fees. This allows calculating the total tax revenue forgone due to fewer migrants moving to the UK or extending their stay.

Data

The analysis applies tax rates for direct taxes and assumptions on spend on indirect taxes to estimated income and spending associated with applicants to different visa categories.

The analysis used the following data on income and spending for different visa categories:

- **Nationality and settlement:** Gross incomes for applicants and dependants have been based upon estimates of the median wage of non-EEA nationals multiplied by the employment rate for this group. The data come from the Labour Force Survey (LFS) 2017 Q2.
- **Tier 1 Investor:** The fiscal contributions are inferred from the indirect taxation on their spending in the UK. The indirect tax estimates used are based upon research by the Migration Advisory Committee (MAC) on the economic impact of Tier 1 investors²¹.
- **Other Tier 1 routes (Entrepreneur; Graduate entrepreneur; Exceptional talent):** In the absence of Home Office management information for the salaries of Tier 1 migrants, the gross incomes are assumed to be in line with the median salaries of self-employed individuals in the UK, based upon analysis of the Family Resources Survey by the Institute for Fiscal Studies, updated to account for average earnings inflation²².
- **Tier 2 and Tier 5:** Gross incomes have been obtained from 2016 and 2017 Home Office management information. Tier 5 salaries are calculated as the median salary of the subset of those Tier 5 migrants which report that they earn a salary during their visit.
- **Tier 4:** The fiscal contributions are inferred from measures of the 'cost of living' for international students. The direct tax contribution of international students is assumed to be zero because the earnings of international students typically fall below the threshold which would make them subject to direct taxation. A measure of the 'cost of living'²³ is used to calculate the contribution to indirect tax contribution of international students.
- **Visitors:** The fiscal contributions of visitors to the UK are determined by their indirect tax contribution from spending. Data on the expenditures made by visitors during their trips to the UK is obtained from the ONS International Passenger Survey 2016.

The IA assumes that those deterred from applying for nationality do not yield a loss to the Exchequer. This is because nationality products are optional and deterred applicants are still eligible to for leave to remain in the UK, even if they do not apply. Deterred applicants are therefore assumed to continue to contribute to the Exchequer.

Methodology

The analysis considers fiscal contribution for direct and indirect taxes.

²¹ MAC report available at

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/285220/Tier1investmentRoute.pdf

²² Institute for Fiscal Studies (February 2015:57) "Green Budget" available at: <http://www.ifs.org.uk/publications/7530>. Earnings inflation data based on OBR Economic & Fiscal Outlook November 2017.

²³ ADD REFERENCE TO COST OF LIVING ESTIMATES

For direct taxes the analysis applies income tax and National Insurance contribution rates from 2017/18 to the income estimates for each visa category.

Council tax contributions are estimated based on ONS estimates of council tax contribution by income decile²⁴. These estimates are adjusted by the number of economically active people per household to estimate an individual's council tax contribution. The amount spent on council tax for each income decile is then applied to the income estimates for each visa category. Income decile of the salaries for visa categories is based on the same distribution used in the ONS estimates

Indirect taxes include VAT, duties on specific products such as alcohol and tobacco, licences such as television and intermediate taxes. Indirect tax contributions will depend upon tastes, preferences and characteristics. However, robust data on the expenditure of migrants is not available and there is uncertainty about their spending patterns. Therefore for indirect tax contributions the analysis applies a similar approach as taken for council tax. ONS estimates²⁵ are used to calculate the proportion of income spent on indirect tax for each earning decile, these proportions are then applied to the estimated income for each visa category. Income levels used to calculate contributions to indirect taxes are adjusted for estimated remittance rates²⁶. The ONS data include a range of indirect and intermediate taxes. The analysis excludes intermediate taxes paid for employers' National Insurance Contributions as this is considered a transfer between employers and the Exchequer. The analysis also does not make further adjustments to cover other taxes (for example environmental levies or capital gains tax), therefore it is possible that the estimates do not reflect contributions to all indirect and intermediate taxes.

For international students indirect tax contributions are estimated based upon measures of the cost of living facing these groups²⁷. For visitors to the UK, indirect tax contributions are inferred from estimates based upon the average expenditure of visitors during their visit. As mentioned previously, contributions to indirect taxes by visitors are based on VAT rate, however this quantification does not make further adjustments on VAT refunds that visitors from outside the European Economic Area are entitled to, and therefore it is likely to be an overestimate²⁸.

The estimates of the fiscal contribution of migrants only include direct and indirect tax contributions from migrants themselves. The analysis does not account for any impact that migrants may have on the fiscal contributions of the resident population. For example, this may occur through the impact of migrants on the productivity and wages of resident workers or through the impact of any displacement of resident workers that may result from migration.

²⁴ ONS publication on "The effect of taxes and benefits on household income 2015/16"; April 2017.

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/theeffectsoftaxesandbenefitsonhouseholdincome/financialyearending2016>

²⁵ ONS publication on "The effect of taxes and benefits on household income 2015/16"; April 2017.

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/theeffectsoftaxesandbenefitsonhouseholdincome/financialyearending2016>

²⁶ Remittance assumptions are based on the same assumptions used in the 2016 Fee order impact assessment, which were based on Understanding Society – Findings 2012, available at <https://www.understandingsociety.ac.uk/research/publications/findings/2012>. More recent updates of this analysis on remittances are not available.

²⁷ Data on cost of living for students is based on the Student Income and Expenditure Survey (SIES) 2011/12

(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301467/bis-14-723-student-income-expenditure-survey-2011-12.pdf). Results have been updated with inflation to 2017/18 prices.

²⁸ Non-EU nationals visiting the UK are entitled to VAT refunds under some circumstances <https://www.gov.uk/tax-on-shopping/taxfree-shopping>.

Results

The following table shows the expected contribution per year to direct and indirect tax by selected types of visa applicants. Results are based on the salary estimated for each visa category.

Table A4.5 Expected contribution per year to direct and indirect tax by selected types of visa applicants, 2017/18 prices, £.

Visa Product	Estimated yearly contribution to direct and indirect taxes
Visit Visa (6 months)	200
Visit Visa (2 years)	900
Family route to settlement	2,500
Transit Visa	0
Tier 1 – Entrepreneur, standard – Main Applicant	4,800
Tier 1 – Entrepreneur, standard – Dependant	1,900
Tier 2 - General; Long term ICT; Sport and MoR - Main Applicant	17,500
Tier 2 - General; Long term ICT; Sport and MoR - Dependant	1,900
Tier 2 - Short term ICT; Graduate Trainee; Skill Transfer - Main Applicant	13,300
Tier 2 - Short term ICT; Graduate Trainee; Skill Transfer - Dependant	1,900
Tier 4 - Main Applicant	2,700
Tier 4 - Dependant	1,900
ILR - Main Applicant	10,600
ILR - Dependant	2,500
Naturalisation (British citizenship)	0
Tier 2 - General (in-UK) - Main Applicant	13,300
Tier 2 - ICT (in-UK) - Main Applicant	22,000
Tier 4 - Main Applicant	2,700
Tier 5 - Main Applicant	4,400

Source: Home Office internal analysis.

ANNEX 5 – 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 report in January 2012.²⁹ Building on this, the Home Office and the Department for Business, Innovation and Skill published a literature review on the impacts of migration on UK native employment.³⁰ This Annex sets out how these reports' findings have been applied in this impact assessment.

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

Rate of Displacement

This IA uses displacement assumptions build upon the upon evidence provided by the MAC report (January 2012). The report estimated the association between migration and native employment in Great Britain, using data from the Labour Force Surveys between 1975 and 2010. For the purpose of the report, natives were defined as UK-born individuals. The headline result was 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 held in all periods, including periods of economic growth as well as contraction.

The Home Office / BIS literature review concluded that:

- There is relatively little statistically significant evidence of migrants' displacement of UK natives from the labour market in periods when the economy has been strong, but some evidence that some labour market displacement has occurred in recent years when the economy was in recession.
- Displacement effects are also 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 the 2000s are less likely to find any impacts. Where displacement effects are observed, these tend to be concentrated on low skilled natives.
- This suggests that the labour market adjusts to increased net migration when economic conditions are good. But during a recession, and when net migration volumes are high as in recent years, it appears that the labour market adjusts at a slower rate and some short-term impacts are observed.
- To date there has been little evidence in the literature of a statistically significant impact from EU migration on native employment outcomes, although significant EU migration is still a relatively recent phenomenon and this does not imply that impacts do not occur in some circumstances.
- The evidence also suggests that, where there has been a displacement effect from a particular cohort of migrants, the effect dissipates over time – that is, any displacement impacts from one set of new arrivals gradually decline as the labour market adjusts, as predicted by economic theory.

Further analysis has led to the working assumption that a one-off inflow of 100 low-skilled, working-age migrants will displace 15 native workers from employment (so that 15% of such migrants take jobs that would otherwise have gone to native workers) and that a similar increase high-skilled migrants will not displace any native workers from employment.

²⁹ MAC (2012) Analysis of the impacts of migration.

³⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/287287/occ109.pdf

The following table lists the full set of displacement assumptions currently used in Home Office analyses.

Table A5.1 Displacement rate assumptions for different types of migrants in different economic circumstances

Economic context	Migrant Type	Scenario		
		Lower bound	Best estimate	Upper bound
Normal conditions	Skilled workers	0%	0%	0%
	Low skilled workers	0%	15%	30%
Severe downturn	Skilled workers	0%	0%	10%
	Low skilled workers	10%	30%	50%

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. 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 are removed from the UK may have already spent a period of time in the UK and may be associated with a lower level of displacement. However, the length of time in the UK is not known, so it is assumed that migrants would have been in the UK for between 0 and 5 years. For this reason, this IA assumes that displacement effects last for 3 years in the Central scenario, 1 year in the 'Low' and 5 years in the 'High' scenario.

Displacement by Cohort

The 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. The following year, there will be another inflow of migrants, and while 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 A5.2, which sets out an illustrative example for assessing the impact of displacement over time for each cohort, where it is assumed that the displacement effects (15%) occur over a 5 year period.

Working through the following table : 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, 12 in year 2, 9 in year 3, 6 in year 4, 3 in year 5, and 0 in year 6.

Table A5.2 Illustrative example of the impact of displacement (5-year displacement assumed).

		Migrants present in:					
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Arrival year	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
Sum		200	500	750	1350	1750	1950
		Assumed displacement of native workers (%)					
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Arrival year	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 of native workers (#)					
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Arrival year	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
Sum		30	69	92	159	179	156

Note: volumes are purely illustrative.

Replacement Effects

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, or migrants deterred from coming to 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 native employment associated with equivalent migrant outflows. Furthermore, as it is not known for how long migrants who leave the country were in the country, the central estimate is that they stayed here for 3 years, and this is taken into account when assessing the replacement effect (essentially, a migrant leaving after staying for 3 years will permit replacement of fewer UK residents than a migrant leaving after staying for only 1 year).

Application to this IA

The policy changes considered in this impact assessment result in a reduction in the number of migrants coming or remaining in the UK. These changes are assumed to result in replacement effects. The assumption is that, of the number of low skilled immigrants that leave the UK that were employed, 15% of the employment vacated will be filled by UK natives in the low and central scenarios and 30% in the high scenario. In line with the displacement assumption, this IA assumes that replacement effects last for 3 years in the Central scenario, 1 year in the 'Low' and 5 years in

the 'High' scenario. The following table illustrates how the effect tapers in the three considered scenarios.

Table A5.3 Replacement rate assumptions under different scenarios, (%).

Scenario	Initial Replacement Rate (%)	Taper	Year 1	Year 2	Year 3	Year 4	Year 5
Low	15	1 Year Taper	100	0	0	0	0
Central	15	3 Year Taper	100	67	33	0	0
High	30	5 Year Taper	100	80	60	40	20

The changes in fee level considered in this IA are anticipated to result in a small fall in the volume of applicants to whom the replacement assumption is applied. As a consequence, when rounding to the nearest 10 the estimated volume of additional UK residents employed in each year rounds to zero. This annex does therefore not present a breakdown of the effect of the replacement assumption on the employment of UK residents.