

CONSULTATION ON MODERN WORKPLACES

Annual Leave Carry Over Arrangements:

Impact assessment

MAY 2011

Title: Annual Leave Carry Over Arrangements Lead department or agency: BIS Other departments or agencies:	Impact Assessment (IA)
	IA No: BIS0146
	Date: 01/12/2010
	Stage: Consultation
	Source of intervention: EU
	Type of measure: Secondary legislation
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Summary: Intervention and Options

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

The EU Working Time Directive set out the right for EU workers to a minimum amount of paid annual leave each year. The UK's Working Time Regulations (WTR), which gives effect to the Directive, are inconsistent with certain aspects in recent CJEU judgments, and therefore not fully compliant with the Directive. The CJEU set out the principle that annual leave could not be lost if there had not been an opportunity to take it due to a worker being on other types of leave e.g. sick and maternity. The Government must amend the WTRs to ensure they comply with these judgments. Ignoring the judgments could lead to infraction action by the European Commission. By amending the WTR we will be able to limit the impact of the rulings as well as promoting Government's family friendly policy.

What are the policy objectives and the intended effects?

The primary policy objective is to render UK legislation consistent with CJEU case law, providing clarity and certainty for employers whilst minimising and where possible mitigating increased costs. The proposed changes are also consistent with the Government's policy to encourage shared parenting by ensuring that a worker can take both their annual leave and family friendly leave.

What policy options have been considered? Please justify preferred option (further details in Evidence Base)

(1) Do nothing

(2) Amend the regulations so that they are compliant with principles of CJEU rulings (whilst allowing some of the principles to be limited to the first 4 weeks of annual leave for sickness).

3) As option 2 although principles around sickness apply to full 5.6 weeks of annual leave.

When will the policy be reviewed to establish its impact and the extent to which the policy objectives have been achieved?	It will be reviewed 01/2015
Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?	Yes

SELECT SIGNATORY Sign-off For consultation stage Impact Assessments:

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 SELECT SIGNATORY: 

Date: 16 May 2011

Summary: Analysis and Evidence

Policy Option 1

Description:

Price Base Year 2010	PV Base Year 2010	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low: -113.6	High: -706.0	Best Estimate: -419.4

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	32.2	1	40.1	377.3
High	118.8		139.2	1,316.7
Best Estimate	86.6		102.9	972.7

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

The costs identified are, firstly, employers' adjustment to increased annual leave taken by employees (estimated at £102.9mn) and secondly, employer familiarisation costs (estimated at £86.6mn). Under our analysis employers will either suffer a loss of output, arising from an employee taking additional annual leave, or experience costs in covering for the absent employee. In addition, employers will have to calculate any annual leave that is carried over and will face familiarisation costs.

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

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	0	30.6	263.7
High	Optional		80.0	610.7
Best Estimate	0		64.3	553.3

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

The impact of the policy proposal will be an income transfer from employers to employees. All things being equal, employees benefiting from the change in regulations will receive the same wage payments for fewer hours worked. Therefore, the £64.3mn of benefits is calculated by the number of days additional annual leave multiplied by the median employee wage. These benefits represent an equivalent cost for employers and make up part of the adjustment costs calculated above.

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

The proposals clearly distinguish between annual leave and sickness, maternity, adoption, parental, paternity and additional paternity leaves. Consequently, employees' health and well being should improve which may have secondary affects on their productivity and in turn the wider economy.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5

The key areas of uncertainty are around employers' responses in dealing with additional days of employee absences. We make assumptions on employee awareness, take-up and existing employer compliance to account for any deadweight. Assumptions are also made on admin and familiarisation costs based on time taken to deal with employee absences. We use daily wage as a proxy for the benefit to employees experiencing additional annual leave. We hope to refine our assumptions through consultation, particularly on existing employer practice and business experience since the CJEU rulings. Given this uncertainty, low, medium and high sensitivity profiles are presented for both costs and benefits.

Impact on admin burden (AB) (£m):		Impact on policy cost savings (£m):		In scope
New AB:	AB savings:	Net:	Policy cost savings:	Yes/No

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	Great Britain				
From what date will the policy be implemented?	April 2011/ Oct 2011				
Which organisation(s) will enforce the policy?	Employment Tribunals and Courts				
What is the annual change in enforcement cost (£m)?	£0				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	Yes				
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)	Traded: n/a		Non-traded: n/a		
Does the proposal have an impact on competition?	No				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs: 0		Benefits: 0		
Annual cost (£m) per organisation (excl. Transition) (Constant Price)	Micro	< 20	Small	Medium	Large
Are any of these organisations exempt?	No	No	No	No	No

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
Statutory equality duties ¹ Statutory Equality Duties Impact Test guidance	No	39
Economic impacts		
Competition Competition Assessment Impact Test guidance	No	39
Small firms Small Firms Impact Test guidance	No	38
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	No	
Wider environmental issues Wider Environmental Issues Impact Test guidance	No	
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	Yes	
Human rights Human Rights Impact Test guidance	No	
Justice system Justice Impact Test guidance	No	
Rural proofing Rural Proofing Impact Test guidance	No	
Sustainable development Sustainable Development Impact Test guidance	No	

¹ Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

References

Include the links to relevant legislation and publications, such as public impact assessment of earlier stages (e.g. Consultation, Final Enactment).

No.	Legislation or publication
1	<u>-Link to consultation document will be added</u>
2	Stringer ECJ Ruling http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:281:0021:0021:EN:PDF
3	Pereda ECJ Ruling http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:267:0020:0021:EN:PDF
4	Gomez ECJ Ruling http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2004:106:0004:0004:EN:PDF
5	Land Tirol ECJ Ruling http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:161:0009:0010:EN:PDF

+ Add another row

Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

Annual profile of monetised costs and benefits* - (£m) constant prices

	Y ₀	Y ₁	Y ₂	Y ₃	Y ₄	Y ₅	Y ₆	Y ₇	Y ₈	Y ₉
Transition costs	86.60	0	0	0	0	0	0	0	0	0
Annual recurring cost	102.94	102.94	102.94	102.94	102.94	102.94	102.94	102.94	102.94	102.94
Total annual costs	189.57	102.94	102.94	102.94	102.94	102.94	102.94	102.94	102.94	102.94
Transition benefits	0	0	0	0	0	0	0	0	0	0
Annual recurring benefits	64.27	64.27	64.27	64.27	64.27	64.27	64.27	64.27	64.27	64.27
Total annual benefits	64.27	64.27	64.27	64.27	64.27	64.27	64.27	64.27	64.27	64.27

* For non-monetised benefits please see summary pages and main evidence base section

Evidence Base (for summary sheets)

A. Problem under consideration

1. The UK's Working Time Regulations (WTRs) which give effect to the European Working Time Directive, are inconsistent with recent CJEU (Court of Justice of the European Union, previously known as the European Court of Justice) judgments around the interaction of annual leave and other types of leave (specifically sick, maternity and parental).

2. The **Stringer** and **Pereda** CJEU judgments concern the interaction of sick leave and annual leave, **Gomez** was concerned with maternity leave and **Land Tirol** parental leave. The combined effect of the CJEU judgments is that if a worker is unable to take their annual leave within the leave year due to sickness absence, maternity or parental leave then they should be allowed to carryover untaken leave. The current WTRs are silent on some of the principles in the judgments and explicitly forbid the carry over of annual leave which is clearly inconsistent with these judgments. Furthermore, the provisions in the WTRs on the entitlement to a payment in lieu of untaken leave upon termination do not take account of untaken leave which should have been carried over from a previous leave year.

The Government must therefore amend the WTRs to ensure they comply with these judgments.

Box 1: CJEU judgements

The Stringer/Pereda judgements established the following principles in respect of the annual leave entitlement under the Working Time Directive:

- Annual leave accrues during sickness absence (Stringer);
- Annual leave and sickness absence can be taken at the same time if the employee wishes (Stringer);
- A worker whose employment terminates in a year during which they have been on sickness absence, is entitled to the same termination payment as any other worker (Stringer);
- A worker sick during scheduled annual leave can, if they wish, reschedule it within the leave year (Pereda); and
- A worker, who has missed annual leave due to sickness absence and has not had an opportunity to take it again within the leave year, must be able to carry it forward into the next leave year (Pereda).

The judgments on maternity (Gomez) and parental leave (Land Tirol) also mean that a worker cannot lose their right to annual leave because of these other types of leave.

B. Rationale for Intervention

3. Member States are obliged to implement EU Directives. Where domestic law is incompatible with the meaning of a provision in a Directive, as interpreted by the CJEU, then the UK is obliged to amend that law to achieve compatibility. Not taking such action gives rise to the risk of infraction proceedings from the European Commission, or other legal challenge.

4. These changes are also consistent with the Government's policy to encourage shared parenting by ensuring that a worker can take both their annual leave and family friendly leave. In putting forward proposals to amend the WTR to be consistent with the judgments, the Government wants to look carefully at how it can provide appropriate protections for workers without imposing unnecessary costs on business.

C. Policy Objective

6. The primary policy objective is to render UK legislation consistent with CJEU case law, providing clarity and certainty for employers whilst minimising and where possible mitigating increased costs. The proposed changes are also consistent with the Government's policy to encourage shared parenting by ensuring that a worker can take both their annual leave and family friendly leave.

D. Options Summary

Option	Impacts
1. Do Nothing	Risk of infraction, or other legal challenge, continued uncertainty for employers and employees
2. Make amendments, but allow 'carry over' and rescheduling in the case of untaken annual leave due to sickness absence to be limited to the WTD minimum of 4 weeks. Where leave is untaken due to other types of absence (maternity, paternity, adoption, and parental leave) this would not be limited.	Benefits to workers in ensuring access to leave entitlement, costs to employers in lost output or cover arrangements. Costs to employers limited by restriction of carryover and rescheduling in case of sickness absence to WTD minimum, though arrangements could be more complex to administer.
3. As option 2 but 'carry over' and rescheduling of annual leave when it is untaken due to sickness applicable to full statutory leave entitlement (5.6 weeks).	Benefits to workers as per option 2, plus additional benefit from greater carryover and rescheduling rights in case of sickness absence. Increased costs to employers from provision of additional carryover and rescheduling entitlement, though system potentially simpler to administer.

Option 1: Do Nothing

7. Member States are obliged to implement EU Directives. Where domestic law is incompatible with the meaning of a provision in a Directive, as interpreted by the CJEU, then the UK is obliged to amend that law to achieve compatibility. To take no action would expose the UK to the risk of infraction.

8. Public sector bodies (as emanations of the state) may already be complying with the effects of the judgments because public sector workers are likely to be able to rely directly on their right to annual leave under the Directive without the need for any change to domestic law (and could bring claims in employment tribunals on this basis to enforce their rights). However, the CJEU cases have resulted in uncertainty in the private sector because the provisions of the WTR continue to apply and it is unclear how courts and tribunals would interpret this incompatibility. Furthermore, the way in which the WTR are currently drafted would probably result in at least some of the principles in the judgments concerning sickness absence being applied to the full 5.6 week entitlement and not limited to the 4 week entitlement.

Option 2: Amend the regulations so that they are compliant with principles of CJEU rulings (whilst allowing some of the principles to be limited to the first 4 weeks of annual leave for sickness).

9. This option directly addresses the consequences of the CJEU rulings around sickness absence and deals with the rulings on family friendly types of leave by amending the WTR so that they are compliant. In doing this it also tries to limit the impact of the rulings around sickness to reduce the effect on business.

10. **Sickness:** Pereda requires that a worker who is ill during a period of previously scheduled annual leave has the right to request to take the period of the annual leave coinciding with the sickness absence at a different time. If there is no opportunity to take this untaken leave in the current leave year it must be carried forward to the next leave year. The worker would also be entitled to a payment in lieu of untaken leave (including in respect of untaken carried over leave) on termination of employment.

11. This option would amend the regulations so that leave coinciding with sickness could be rescheduled and carried over. However it makes a distinction between the statutory EU leave (4 weeks) which is the Working Time Directive requirement and the additional 1.6 weeks of annual leave which is purely a matter of domestic law. Under this, employers would only be required under the WTR to allow workers to convert the 4 weeks of EU annual leave to sickness absence if they happened to be ill whilst on planned annual leave. If, due to sickness absence, they were unable to take all or some of their leave in the given leave year the employer need only permit carryover of the EU leave entitlement (all or some of the 4 weeks plus any carried over from a previous year). Although this would mean that business would not be

required under the WTR to allow carryover and rescheduling of the full statutory entitlement in sickness cases, this would be subject to any other statutory or contractual obligations.

12. The proposals we have set out for consultation focus on dealing with the principles established in the Pereda judgments. The regulations as they currently stand are compatible with the Stringer principles established by the CJEU, so we do not see any merit in amending the regulations on the issue. The regulations are compatible as the way they are currently written allows for the accrual of annual leave during sickness and allow for leave to be taken at the same time as sickness absence. The guidance has also been updated so that it is compatible with the judgment.

13. **Family Leave:** It is clear from CJEU judgments that carry-over is required in some cases where family types of leave are taken and that in those cases, the right to carry-over cannot be limited to the 4 week entitlement. The family types of leave that are proposed for inclusion within the scope of option 3 are:

Maternity Leave

Employees have the right to 26 weeks of Ordinary Maternity Leave and 26 weeks of Additional Maternity Leave making one year in total. The combined 52 weeks is known as Statutory Maternity Leave.

Parental Leave

Employees can take a total of up to 13 weeks' parental leave for each of their children up to their fifth birthday. If the child is adopted, each parent can take a total of up to 13 weeks' parental leave. This can be until the fifth anniversary of their placement or until their 18th birthday, whichever comes first. If the child is disabled (that is, receiving disability allowance) each parent has the right to take up to a total of 18 weeks' parental leave until their 18th birthday.

Adoption Leave

Employees have the right to 52 weeks of Statutory Adoption Leave. This is made up of 26 weeks of ordinary adoption leave followed by 26 weeks of additional adoption leave and broadly mirrors maternity leave.

Paternity leave (in specific instances where the mother dies)

Where a mother or adopter dies within 12 months of the birth or placement for adoption, the partner can take additional paternity leave from the point of death until 12 months from the child's birth or placement for adoption.

Shared parental leave (Coalition commitment)

The position on shared parental leave is intended to replace some of the existing maternity leave so will follow the position on maternity leave. This is about sharing current maternity leave between father and mother so the costs should be neutral except for some administrative costs.

Ordinary Paternity leave

'Ordinary' paternity leave (two weeks usually within the first 8 weeks of the baby's life).

Additional paternity leave

Additional Paternity Leave is for a maximum of 26 weeks. If an employee's partner has returned to work, the leave can be taken between 20 weeks and one year after the child is born or placed for adoption.

Option 3. As option 2 although principles around sickness apply to full 5.6 weeks of annual leave

14. This option is similar to option 2 although involves applying all the principles in the judgments regarding sickness to 5.6 weeks/(up to a maximum of 28 days). This option will potentially cost more to business and appears to go beyond the minimum requirements for implementing the judgments. However, it may also be easier to administer for business as there would be no distinction between the different types of statutory leave (EU and domestic).

Alternatives to regulation

15. Given that the need for change stems from CJEU judgments, it has not been possible to offer a non-regulatory option to address the issues.

E. Costs and Benefits

16. The total costs and benefits of this impact assessment, based on our central estimates, are summarised in Table 1.

Table 1. Summary of Total Costs and Benefits			
Option	Proposal	Cost (£m)	Benefit (£m)
	Sickness Leave (20 days)	88.14	53.8
	Maternity Leave	13.55	9.87
	Adoption Leave	0.37	0.18
	Parental Leave	0.2	0.11
Option 2)	Additional Paternity Leave	0.5	0.21
	Ordinary Paternity Leave	0.21	0.11
	Total	102.94	64.28
	Net Costs (per annum)	38.70	
Option 3)	Additional Sickness Leave (28 days)	38.42	21.52
	Total	141.36	85.80
	Net Costs (per annum)	55.56	
	One-off familiarisation costs	86.60	

Source: BIS analysis

17. The methodology underlying these estimates is also explained in Annex 3. The estimates outlined rely on a number of assumptions and we are keen to understand from consultees whether or not they agree with the approach to estimating impacts and the magnitude of these impacts.

Overarching Methodology

18. The policy proposal will result in an income transfer from employers to employees. All things being equal, employees benefiting from the change in regulations will receive the same wage payments for fewer hours worked. We use daily wage as a proxy of the benefit to employees experiencing additional annual leave.

19. The impact of the proposal results in employees having more time for rest and recuperation, consequently there may well be productivity gains arising from a healthier work force. This benefit isn't monetised but is in line with broader health and safety aims of the WTD.

20. However, as employers suffer the loss of a work day, they will also lose out on the value of output produced above an employee's wage, their profit share. Consequently, employers may respond by either attempting to replace lost output or by doing nothing. Employers that do try to recoup their loss of output will, however, face costs in covering for an absent employee. Therefore, the additional cost to business, emanating from the proposals, is composed of:

- Additional wage cost (for employers replacing output)
- Cost of finding cover for an absentee (for employers replacing output)
- Loss of output (employers not responding)
- Administration costs
- One-off familiarisation costs

21. The extent to which and how employers try to recoup, will depend on the length of time an employee is absent. To simplify our analysis, we have assumed that employers will attempt to recover an output loss by employing an additional worker to cover for the absentee.

22. Though the circumstances of annual leave will differ across each type of leave, the analysis surrounding employers' costs and response, as well as benefits is based on this framework.

23. The analysis is largely for private sector employees as where options are covered by an CJEU ruling; the public sector should already be directly applying these rulings. Furthermore, in many areas the practices detailed are often already followed in the public sector. Therefore public sector costs are only considered for the proposals which are not directly addressed in a CJEU ruling.

E.1. Option 1: Do Nothing

24. If action is not taken to implement these judgments the UK is at risk of infraction proceedings and the subsequent monetary and reputational costs this would entail.

25. The judgments probably need to be automatically applied in the case of public sector employees, so the rules will be different in the public sector compared with the private sector. Businesses and business groups are aware of the judgments and are keen to have certainty resulting from a clear application to UK law.

26. Calculation of the penalty payment is based on a method that takes account of the seriousness of the infringement, having regard to the importance of the rules breached and the impact of the infringement on general and particular interests, its duration and the Member State's ability to pay, with a view to ensuring that the penalty itself has a deterrent effect. The amount is unknown at present.

27. The original aim of the WTD would not be enforced. There is also potential detriment to workers in not being able to take annual leave for the purpose it was intended – rest, relaxation, time with dependents.

E.2. Option 2: Amend the regulations so that they are compliant with principles of CJEU rulings (whilst allowing some of the principles to be limited to the first 4 weeks of annual leave for sickness).

E.2.1 Sickness Leave: Apply changes to first 20 days of annual leave

Evidence and Affected Population

28. The proposals require only amending the regulations where there were inconsistencies with the Pereda CJEU ruling. As a result the analysis below focuses on shorter-term sickness absences which will result in rescheduling or carrying over leave as this is where the inconsistencies exist.

29. Survey data from the CBI², CIPD³ and EEF⁴ provides evidence on the average annual sickness absence per employee. We focus on short-term sickness, and the impact these absences are likely to have on rescheduling and carrying over annual leave. The CBI Absence and Health Survey⁵ states that short-term sickness as a proportion of total sickness absence was 80% in 2009.

30. In addition to this, we have carried out analysis using the Labour Force Survey (LFS) to estimate average annual hours lost to sickness absence per employee, this served as a robustness check and reinforces our analyses. A description of our LFS analysis is given in Annex 3.

² On the path to recovery: Absence and workplace health survey 2010, CBI

³ Absence Management: Annual Survey 2008, CIPD,

⁴ Sickness Absence and Rehabilitation Survey 2010, EEF

⁵ On the path to recovery: Absence and workplace health survey 2010, CBI

Table 2. Average Annual Private Sector Short-term Sickness Absence per employee

Based on CBI	4.64
Based on CIPD	5.12
Based on EEF	5.52

Source: BIS Analysis using CBI, CIPD, EEF absence surveys

31. Next, we use the average sickness absence per employee, from Table 2, to calculate the risk of sickness absence and annual leave coinciding on a work day.

Table 3. Probabilities of sickness and annual leave

Total working days	261
Probability of sickness on a work day	0.02
Probability of annual leave on a work day	0.11
Probability of sick & annual leave risk on a work day	0.002

Source: BIS analysis

32. From the second quarter 2010 of the Labour Force Survey (LFS), we estimate there to be 17.7mn private sector employees, we only consider private sector employees as the CJEU judgments should already be being applied to the public sector. We make assumptions on existing employer compliance, awareness and the take up of extra annual leave accrued whilst sick to isolate the population of private sector employees who will utilise the change in the regulations.

33. Assumptions on the extent of employees' awareness of their right to extra annual leave are informed by the 2008 Fair treatment at Work Survey⁶. We use WTD awareness as lower bound; general awareness as central case and holiday entitlement as an upper bound. We have no evidence on estimated take-up rates of annual leave accrued whilst sick; however, we do provide high, medium, and low rates to reflect differing sensitivities.

Table 4. Employee Days Affected

Sensitivity	Low	Medium	High
Existing Employer Compliance	70%	50%	30%
Awareness of rights (%)	63%	78%	87%
Employee numbers	7.76mn	6.86mn	4.59mn
Estimated take-up (%)	10%	20%	60%
Number of employee days affected	297,000	656,000	1,054,000

Source: BIS analysis

Estimating Costs

34. To take into account part-time employees' lower total annual work days, we use ONS data on average hours worked and accordingly adjust the number of work days affected. An employer facing additional days of employee absence will suffer a loss of output; consequently we use the figures from Table 4 to estimate the initial wage cost to employers and the corresponding initial cost in GVA.

⁶ <http://www.berr.gov.uk/files/file38386.pdf>

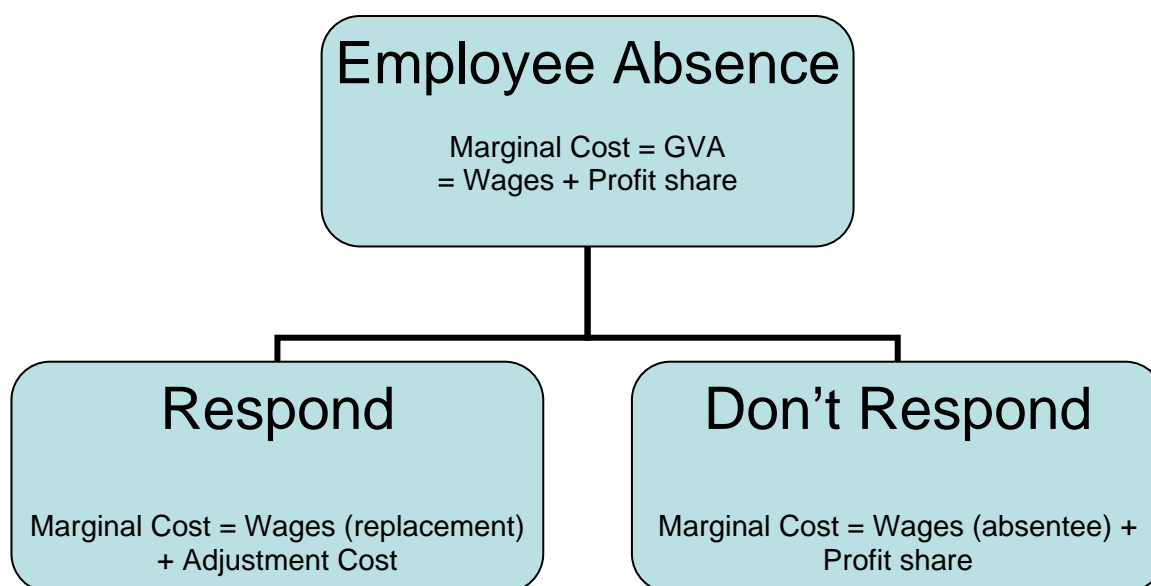
35. In estimating the wage cost of absence that businesses will suffer, we use figures from the Annual Survey of Hours and Earnings (ASHE), whilst to uprate wages to GVA we rely on the ONS Blue Book of National Accounts⁷. In addition, the GVA cost to business is adjusted for seasonal variation in sickness and annual leaves using LFS data on hours worked.

Table 5. Initial Cost (£mn) of Absence (Before Adjustment)

Sensitivity	Low	Medium	High
Wage Cost	24.34	53.80	86.42
GVA Cost	40.64	89.85	144.31

Source: BIS analysis

36. These are the initial costs that employers will face; furthermore, we use our overarching framework for analysing employers' responses as some employers will replace this loss in GVA.



37. Employers who decide not to respond will suffer the full loss in GVA. In contrast, for employers that attempt to replace lost output an additional worker's wage and an adjustment cost will be incurred. In the case of a business opting to replace lost output, we assume this is achieved by recruiting an equally productive temporary worker to replace the absent employee.

38. As a result, we make assumptions on the proportion of the GVA cost presented in Table 6 that is lost through employers deciding not to replace.

Table 6. Loss in GVA

Sensitivity	Low	Medium	High
Initial GVA Cost (£m)	40.64	89.85	144.31
Employer non-Response	25%	50%	75%
Loss in GVA (£m)	9.89	43.74	105.39

Source: BIS analysis

39. For the employers that do respond, they will face an extra wage bill and adjustment costs for covering the absent employee. This is calculated by applying the remaining proportions⁸, in the second

⁷ http://www.statistics.gov.uk/downloads/theme_economy/bluebook2010.pdf

⁸ E.g. In the low risk case, we assume 25% of the initial GVA is not responded to, whilst the remaining 75% is responded to by employers who will face additional wage costs (remunerating a new employee), which is marked-up to consider the costs of finding the cover for the absentee.

row of Table 6, and then applying a mark-up⁹ to account for non-wage labour and adjustment costs. In line with previous Impact Assessments dealing with employee absence, we use the methodology proposed in the “Measures to support Working Parents and their employers”¹⁰ IA, this suggests absence adjustment costs of 9-15%. The adjustment mark-up applied under each sensitivity is described in table 13.

Table 7. Employers replacing lost output (£m)

Sensitivity	Low	Medium	High
Additional wage costs	21.38	47.27	75.92
Costs of covering absence	1.92	6.12	11.34

Source: BIS analysis

Table 8. Annual Aggregate Costs (£m)

Sensitivity	Low	Medium	High
Lost GVA	9.89	43.74	105.39
Additional Wages	21.38	47.27	75.92
Absence Cover Costs	1.92	6.12	11.34
Admin Costs	0.28	0.55	0.81
Total Costs	30.06	88.14	174.26

Source: BIS analysis

40. Aggregate Costs = lost GVA (employers not replacing) + wage bill of temporary worker (employers replacing) + absence cover costs (employers replacing) + admin costs (all employers)

Admin Costs

41. Admin costs are quantified using ASHE data on the hourly wages of personnel managers and accounts clerks. As a result of the regulations, businesses will have to monitor and calculate what an employee can carry into the next reference period and familiarise themselves with new rules. Admin costs are differentiated between large and small businesses.

Table 9. Admin Costs

Sensitivity	Low	Medium	High
Admin Costs (£m)	0.28	0.55	0.81

Source: BIS analysis

42. Table 10 above only encompasses recurring administration costs and the assumptions for estimating admin costs are given in Table 15.

⁹ In line with previous IAs on Employment Regulations, we take non-wage labour costs as 21% of total labour costs.

¹⁰ <http://webarchive.nationalarchives.gov.uk/http://www.dti.gov.uk/er/riabudget.htm>

Table 10. Assumptions for calculating admin costs

	Low	Medium	High
			Clerk 30 mins, personnel manager 30 mins
Large firms (64% ¹¹)	Clerk 15 mins	Average of low & high	
Small firms (36%)	-20% of medium	0.25 days Manager and Senior Personnel	+20% of medium

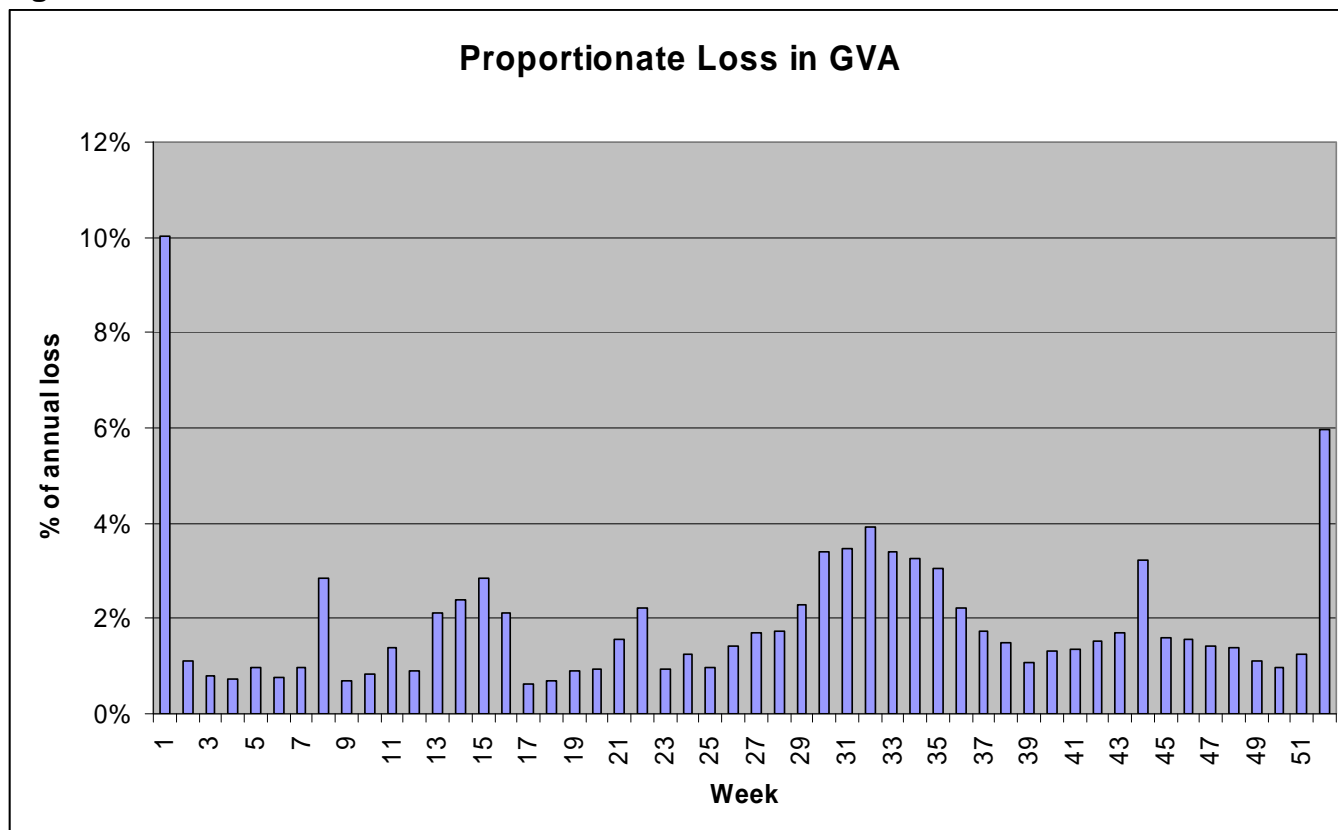
Source: BIS analysis

Carry-Over Costs

43. The change in the regulation only explicitly addresses the *carry-over* of annual leave, when an employee cannot take some of his entitlement due to sickness. This is the only element of the judgments where the regulations are not compliant with the judgment as carry-over is forbidden. However, the reading of the regulations, as they currently stand, will enable employees to reschedule annual leave coinciding with sickness across the year (and the guidance can be used clarify this is the case). Nevertheless, this carry-over proportion of the annual cost, is isolated.

44. To isolate these costs, we use our LFS analysis which consists of assessing hours lost to sickness and holiday across each week of the year. From this, Figure 1 presents the subsequent proportionate cost in GVA for each week of the year.

Figure 1. Estimated loss in GVA from the interaction of sickness and annual leave



Source: BIS analysis, LFS Q1-Q4 2009

¹¹ The distribution of workplace size is taken from the LFS Q2 2010

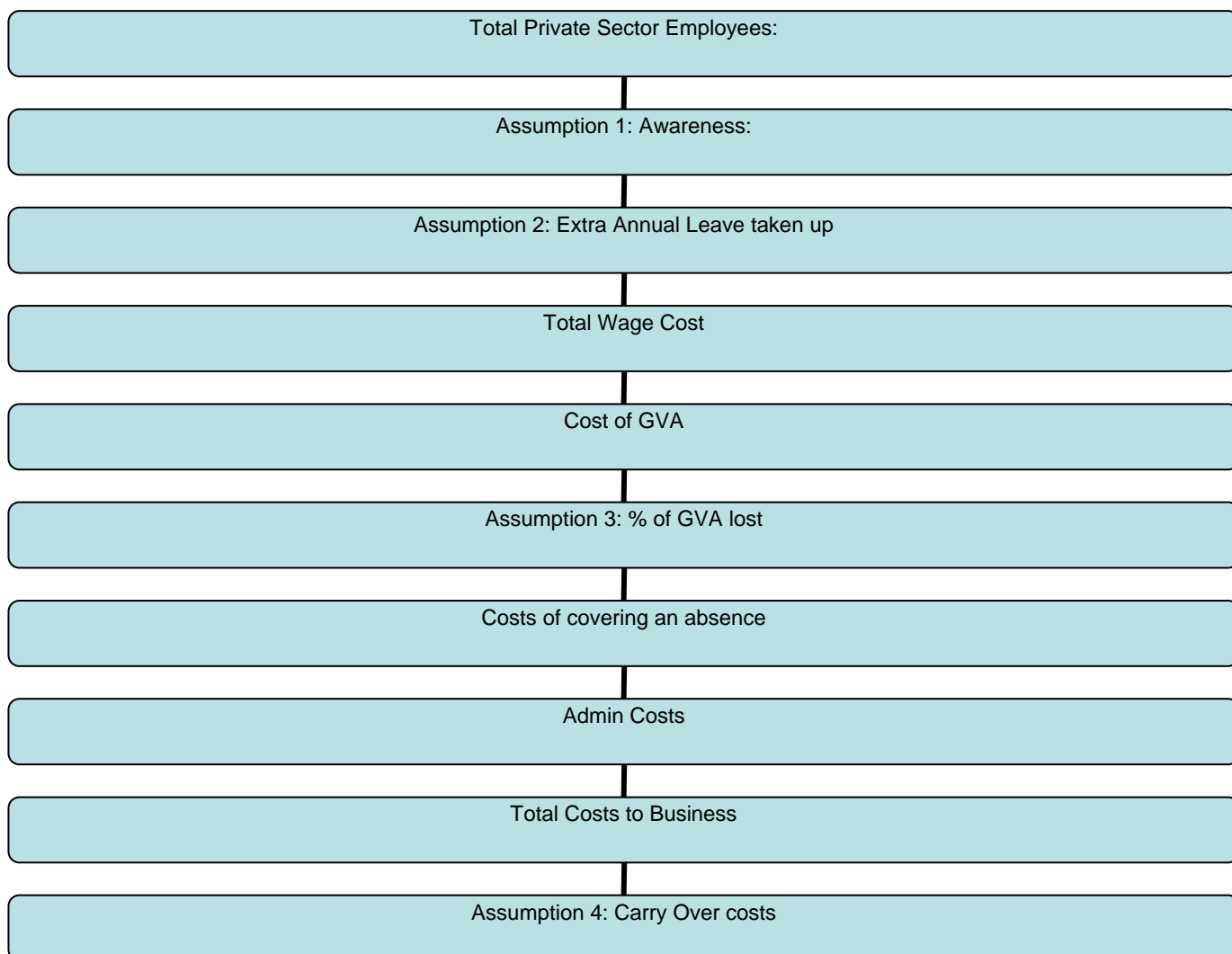
45. We take the share of the week 52's contribution to the annual GVA cost facing firms as measure of the share of the aggregate costs given above (6%), which will be carried over. Sensitivity analysis of plus/minus 20% is undertaken on the carry over share and we are using the medium sensitivity, in Table 11, as our baseline of annual aggregate cost.

46. The table 11 below presents our estimates of the total costs to business a result of implementing the proposed change in the regulations. Sensitivity analysis of plus/minus 10% has been undertaken on the share of sickness-annual leave costs across the year that is isolated for carry over.

Carry-over share of annual cost	Cost (£m)
6%	5.29
7.20%	6.35
4.80%	4.23

Source: BIS

Figure 2. Sickness leave methodology



Summary of Costs

47. Given the number of assumptions imposed in the analysis, Table 12 presents costs for low, medium and high sensitivities. The figures presented below reflect the annual costs to employers from the Pereda CJEU ruling, which will allow employees to reschedule leave that coincides with sickness

absence. Therefore, the costs given in the table 12 below encompass the impact of the *explicit* proposed changes to the regulations; that employees are able to carry-over any annual leave untaken due to sickness absence into their next leave year.

Table 12. Summary of Costs

Sensitivity	Low	Medium	High
Costs of absence (£m)	29.79	87.59	173.44
Admin costs (£m)	0.28	0.55	0.81
Total Cost to business (£m)	30.06	88.14	174.26

Source: BIS analysis

Benefits

48. Employees benefit from having assured rest from the workplace and the benefits are (imperfectly) proxied by wages. We use the median daily wage from ASHE 2009 as a proxy for the value of an additional day of annual leave to employees who are able to reschedule their leave. Benefits are, therefore, calculated as:

Total benefit = Total days affected * Median Wage¹²

Table 13. Benefits

Sensitivity	Low	Medium	High
Total Benefit (£m)	24.34	53.80	86.42

Source: BIS analysis

Summary of Costs and Benefits

Table 14. Summary of Costs and Benefits

Sensitivity	Low	Medium	High
Costs (£m)	30.06	88.14	174.26
Benefits (£m)	24.34	53.80	86.42
Net Costs (£m)	5.73	34.34	58.83

Source: BIS analysis

49. The annual costs presented in Table 14 represent the impact of the proposal on business. Though, only the carry-over aspect of the interaction between annual and sick leave is addressed by the change in the regulations, employers will face the proposition of employees rescheduling annual leave coinciding with sickness absence.

¹² See Annex 3 for a more detailed explanation

Risks and Assumptions

Table 15. List of Assumptions

Assumptions	Source	Risk		
		Low	Medium	High
Awareness of rights (%)	Fair Treatment at Work 2008	63%	78%	87%
Estimated take-up (%)	-	10%	20%	60%
Cost of covering absence (of wages)	Measures to Support working parents and their employers IA ¹³	9%	13%	15%
Employer non-replacement of GVA	-	9%	13%	15%
Admin costs	ASHE 2009	75%	50%	25%
Carry-over Share	BIS analysis/LFS	5.40%	6%	6.60%

Source: BIS

50. The costs and benefits presented may overstate the actual figures as the incidence of employers paying occupational sick pay hasn't been incorporated into the analysis, because of a lack of data. Some employers will not be paying out occupational or statutory sick pay for the first three days of sickness absence; consequently, this will reduce the number of employees who take up rescheduled annual leave.

51. We hope to refine our assumptions through consultation, particularly on existing employer practice and business experience since the CJEU rulings. In addition, this will enable us to better estimate administration/familiarisation costs. This uncertainty around factors such as employer behaviour is reflected in a large range of cost and benefit estimates.

52. There is a risk that in applying changes to 4 weeks of leave to mirror EU requirements, rather than the higher UK minimum of 5.6 weeks, employers find the system difficult to operate. Some may choose to apply it to employees' contractual leave allowance. An assessment of the impact of extending the amount annual leave in scope of the proposed changes is given in section D.3.

E.2.2 Maternity Leave

53. Employees are entitled to 26 weeks of Ordinary Maternity Leave and 26 weeks of Additional Maternity Leave. The combined Statutory Maternity Leave can be taken by an employee, if the correct notice is given, regardless of tenure, hours worked and pay.

54. The analysis considers two scenarios where annual leave untaken due to maternity leave may be carried over. Firstly, in the context of a mother experiencing early child birth resulting in some pre-birth annual leave being untaken, as the mother then switches to maternity leave. Subsequently, if the mother's maternity leave duration crosses her annual leave reference period (going across an "annual leave year") she is now able to carry over any untaken leave.

55. The second scenario is the case where a mother's maternity leave duration is over 47 weeks and her maternity leave and annual leave reference period runs parallel. The length of maternity leave in this case will result in some annual leave being lost.

¹³ <http://webarchive.nationalarchives.gov.uk/+http://www.dti.gov.uk/er/riabudget.htm>

E.2.2.1 Scenario 1: Early Birth

56. In this scenario we are looking at mothers who take maternity leave early due to their babies arriving ahead of the expected due date, and who as a result have not taken any pre-planned annual leave that they were on or were planning to take before commencing maternity leave.

57. The population of employees on maternity leave is drawn from DWP's statutory maternity pay model¹⁴ and we derive a distribution for the duration of maternity leave from the "Maternity and Paternity Rights and Benefits: Survey of Parents 2005"¹⁵. In response to the lack of evidence split on the private-public sector split of employees on maternity leave, we assume the same ratio as present for all employees. This split is based on the second quarter 2010 of the LFS.

Table 16. Distribution of maternity Leave

Length of maternity leave (Weeks)	9	21.5	25.5	28	34.5	45	51.5	52+
Density	8%	5%	45%	3%	15%	8%	13%	2%
Private Sector Employees (000's)	18.8	11.8	105.8	7.1	35.3	17.6	30.6	4.7
Early Births (000's)	1.3	0.8	7.4	0.5	2.5	1.2	2.1	0.3

Source: BIS analysis

58. Evidence from the "Maternity Rights and Employment Decisions"¹⁶ survey suggests that 7% of mothers leave work to go on maternity leave early. Therefore we adjust the maternity leave distribution to take into account these mothers.

69. Across the duration distribution, we also impose assumptions on how many days of annual leave are lost as result of moving to maternity leave earlier than expected. We make the assumption that mothers who take longer lengths of maternity leave will also plan to have more annual leave before giving birth.

60. The number of days that mothers will carry over into the next reference period is calculated by applying a probability of carry over to each day of "untaken annual leave". This probability, or rate of carry-over, is a function of the length of maternity leave that a mother embarks upon:

61. Carry-Over Rate = length of maternity leave (weeks) / 52

62. Consequently, this differs across the wage distribution so that mothers on longer durations have less time, once they return to work, to take the "untaken annual leave".

Table 17. Length of maternity leave (Weeks)

	9	21.5	25.5	28	34.5	45	51.5	52+
Annual leave days untaken	12	14	16	18	20	20	20	20
Carry Over Rate	0.17	0.41	0.49	0.54	0.66	0.87	1.00	1.00
Days Carried Over	2.08	5.79	7.85	9.69	13.27	17.31	20.00	20.00

Source: BIS analysis

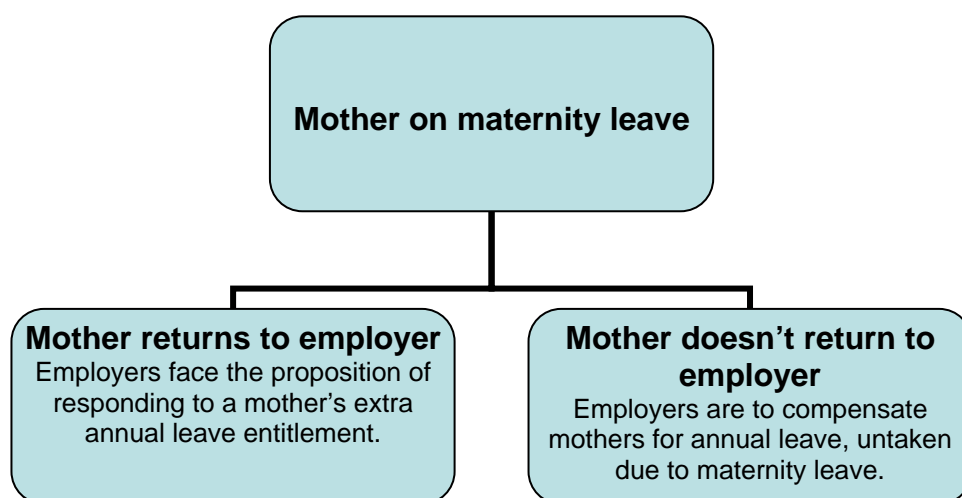
63. The impact of the regulations will affect businesses in both cases of a mother returning to work and not returning after her maternity leave. In the case of mother not returning to her workplace after

¹⁴

¹⁵ <http://www.berr.gov.uk/files/file27446.pdf>

¹⁶ <http://campaigns.dwp.gov.uk/asd/asd5/rports2007-2008/rrep496.pdf>

embarking upon maternity leave, employers will still be required to compensate the mother for any “untaken” annual leave. Consequently, we estimate the proportion of non-returning mothers to be 23 per cent, based on survey evidence¹⁷.



64. We refine the number of private sector employees by imposing further assumptions on existing employer practice, employee awareness and take-up. This is applied to the sub-populations of returning and non-returning mothers.

Table 18. Days Affected

Length of maternity leave (Weeks)	9	21.5	25.5	28	34.5	45	51.5	52+	Total
Returning Mothers (000's)	1.0	0.6	5.7	0.4	1.9	1.0	1.6	0.3	12.5
Mothers constrained by Employers (000's)	0.7	0.4	4.0	0.3	1.3	0.7	1.2	0.2	8.7
Awareness (000's)	0.5	0.3	2.8	0.2	0.9	0.5	0.8	0.1	6.1
Mothers taking-up (000's)	0.4	0.2	2.2	0.1	0.7	0.4	0.6	0.1	4.9
Days Carried Over	2.1	5.8	7.9	9.7	13.3	17.3	20.0	20.0	
Days Affected (000's)	0.8	1.4	17.5	1.4	9.9	6.4	12.9	2.0	52.5
Non-returning mothers (000's)	0.4	0.3	2.4	0.2	0.8	0.4	0.7	0.1	5.3
Awareness of non-returning mothers (000's)	0.3	0.2	1.9	0.1	0.6	0.3	0.6	0.1	4.2
Days affected for non-returning mothers (000's)	0.7	1.2	15.1	1.2	8.5	5.6	11.2	1.7	45.3

Source: BIS analysis

¹⁷ Maternity and paternity rights and benefits: Survey of parents 2005

65. From this the number of affected employees is multiplied by our estimations for the number of days carried over across the maternity leave distribution.

Table 19. Wage Costs of Early Birth

Length of maternity leave (Weeks)	9	21.5	25.5	28	34.5	45	51.5	52+	Total
Returning mothers wage cost	0.04	0.08	0.92	0.08	0.52	0.34	0.68	0.10	2.75
Non-returning mothers wage cost	0.02	0.04	0.49	0.04	0.28	0.18	0.36	0.06	1.47

Source: BIS analysis

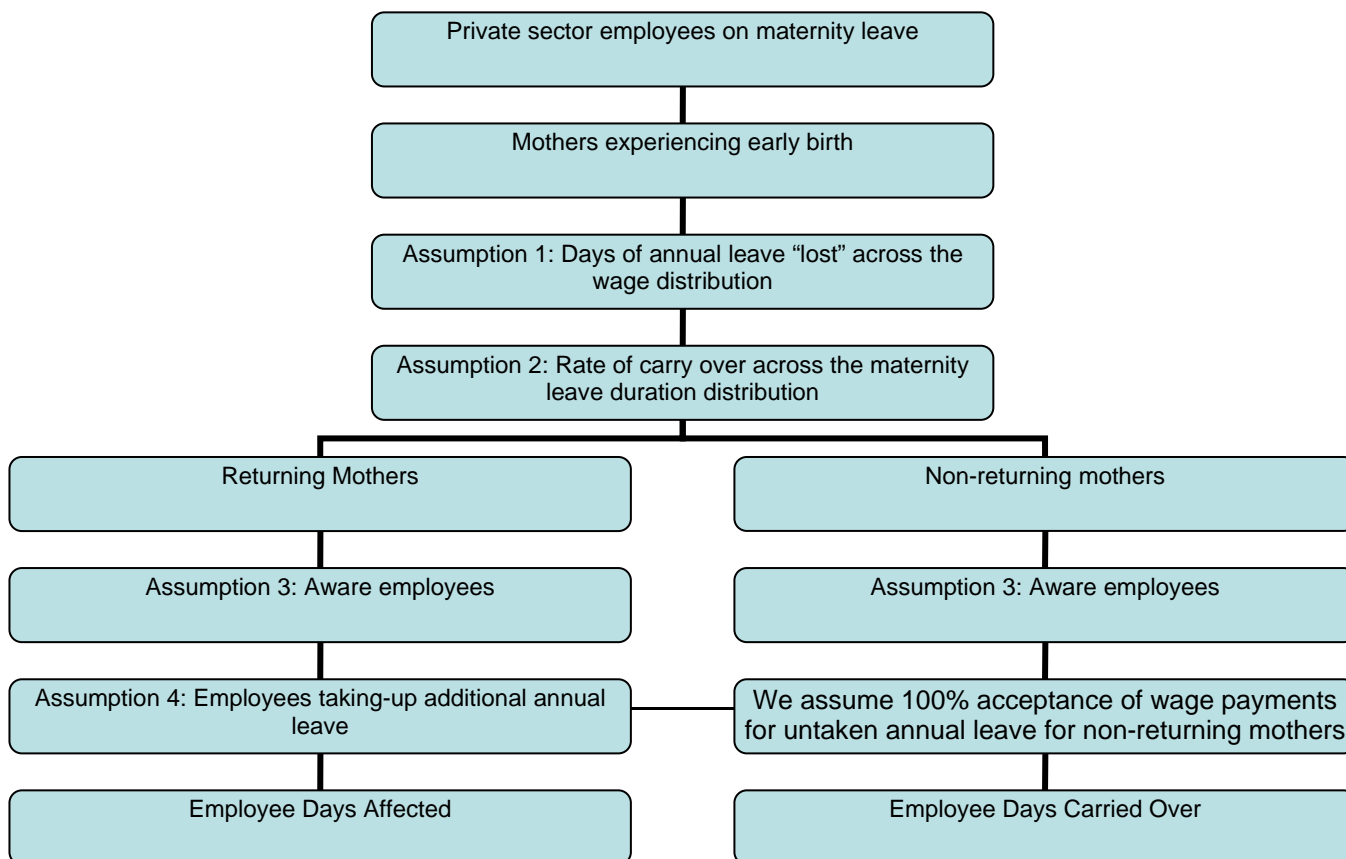
66. We apply our framework on employer adjustment, described in E.2, to estimate the cost to business of annual leave carried over by returning employees. Whilst for non-returning employees wage compensation and finally admin costs are incorporated into the total costs

Table 20. Summary of Costs (£m)

Returning Mothers	
Loss in GVA	2.30
Wage Costs	1.12
Cost of covering absence (of wages)	0.18
Total cost of absence	3.60
Non-returning mothers	
Wage costs	1.47
Admin costs	
	0.35
Total Cost to business	5.42

Source: BIS analysis

Figure 3. “Early Births” methodology



67. Benefits to employees are obtained from the total wage costs resulting from their additional days of annual leave, Table 21 presents the range of costs and benefits calculated.

Table 21. Summary of Costs and Benefits (£m)

Sensitivity	Low	Medium	High
Costs	3.69	6.01	11.80
Benefits	3.31	5.11	8.48
Net Costs	0.39	0.90	3.31

Source: BIS analysis

Risk and Assumptions

68. It is implicitly assumed that, in line with the existing guidance, employees and employers have planned annual and maternity leave so that they are both taken within the reference year and that no annual leave is left untaken. Table 22 presents the other assumptions made in this analysis.

Table 22. Assumptions

Risk	Source	Low	Medium	High
Early Births	Maternity Rights and Employment Decisions	7%	7%	7%
Non-returning mothers	Maternity and paternity rights and benefits: Survey of parents	23%	23%	23%
Employers not permitting carry-over	-	50%	70%	90%
Awareness of rights (%)	-	60%	70%	80%
Estimated take-up (%)	-	70%	80%	90%
Cost of covering absence (of wages)	Measures to Support working parents and their employers IA	9%	13%	15%
Employer non-replacement of GVA	-	25%	50%	75%
Carry-over Rate	-	maternity length/52		

Source: BIS

E.2.2.2 Scenario 2: Long durations of maternity leave

69. The distribution of maternity leave is derived from survey evidence provided by “Maternity and Paternity Rights and Benefits: Survey of Parents 2005” and the number of eligible employees are adjusted for only the private sector share.

Table 23. Long Durations of Maternity Leave

Length of maternity leave (Weeks)	40-50	52	52+
Density	8%	15%	3%
Numbers (000's)	25.0	50.0	8.3
Private Sector Employees (000's)	17.6	35.3	5.9
Whose reference period is parallel to maternity leave (000's)	2.9	5.9	1.0

Source: BIS analysis

70. From this we assume that 17% of mothers will have a maternity leave and reference period running in the same month. This is based on the simplifying assumption that reference periods only start on 1st January and 1st April, hence $(2/12) \times 100 = 16.6\%$.

71. Using the same ratio of returning to non-returning mothers, as invoked in the earlier analysis of early birth, Table 23 shows the number of eligible mothers in scope of this scenario. Assumptions are also made that a set amount of annual leave per employee will be untaken.

Table 24. Carry Over of annual leave

Length of maternity leave (Weeks)	40-50	52	52+
Returning Mothers (000's)	2.3	4.5	0.8
Non-returning mothers (000's)	0.7	1.4	0.2
Days carried over	10	28	28

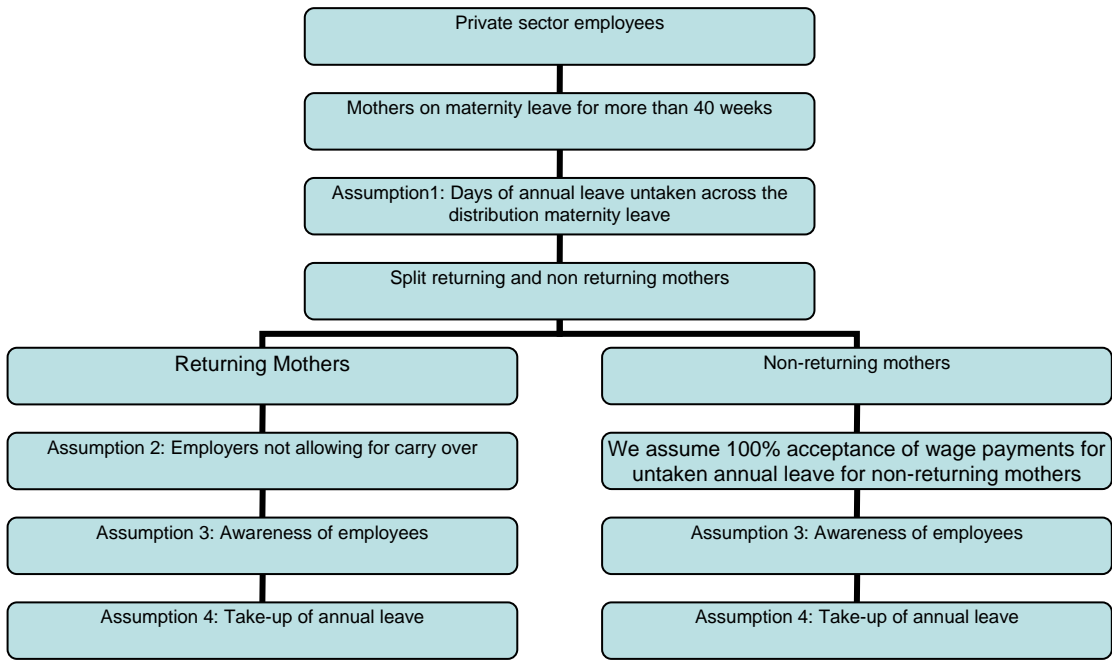
Source: BIS analysis

Table 25. Total Days Affected	
Returning Mothers (000's)	7.5
Mothers constrained by Employers (000's)	5.3
Awareness Days taken up (000's)	3.7
Take-up (000's)	3.0
Days Affected (000's)	66.8
<hr/>	
Non-returning mothers (000's)	2.3
Awareness (000's)	1.8
Days Affected (000's)	40.7
Source: BIS analysis	

72. After separating returning and non-returning mothers, assumptions are made on awareness, take-up and existing employer compliance. We apply our framework on employer adjustment to the annual leave carried over by returning employees. Whilst for non-returning employees wage compensation is incorporated into the costs and finally admin costs are estimated. We assume 100 per cent take-up of wage compensation for aware non-returning mothers

Table 26. Summary of Costs (£m)	
Returning Mothers	
Loss in GVA	3.54
Additional Wage Costs	2.12
Cost of covering absence	0.28
Total cost of absence	5.94
Non-returning mothers	
Wage costs	2.14
Admin costs	3.09
Total Cost to business	11.16
Source: BIS analysis	

Figure 4. “Long Durations” methodology



Summary for Costs and benefits for long durations of maternity leave

73. Benefits to employees are obtained from the total wage costs resulting from their additional days of annual leave.

Table 27. Summary of Costs and Benefits (£m)

Sensitivity	Low	Medium	High
Costs	7.34	9.96	18.54
Benefits	3.48	5.64	7.93
Net Costs	3.86	4.32	10.61

Source: BIS analysis

Risks and Assumptions

74. Risks and assumptions are given in table 28. The amount of days carried over is a major assumption and is based on the duration of maternity that is taken, this is presented in table 24.

Table 28. Assumptions

Risk	Source	Low	Medium	High
Early Births	Maternity Rights and Employment Decisions	7%	7%	7%
Non-returning mothers	Maternity and paternity rights and benefits: Survey of parents	23%	23%	23%
Employers not permitting carry-over		50%	70%	90%
Awareness of rights (%)	-	60%	70%	80%
Estimated take-up (%)	-	70%	80%	90%
Cost of covering absence (of wages)	Measures to Support working parents and their employers IA	9%	13%	15%
Employer non-replacement of GVA	-	25%	50%	75%

Source: BIS

Summary of Total Maternity Leave Costs and Benefits

75. In the case of maternity leave benefits will be experienced by the returning mothers who take additional annual leave into their next reference period. Mothers who don't go back to their employers but have accrued and carried over untaken annual leave will receive wage payments corresponding to the amount of annual leave that would have been eligible for carry-over had they returned to work.

Table 29. Total Maternity Leave Costs (£m)

	Low	Medium	High
Early Birth Cost	3.73	5.42	6.10
Long Durations Costs	5.51	8.13	14.32
Total Costs	9.24	13.55	20.42

Source: BIS analysis

Table 30. Summary of Costs and Benefits (£m)

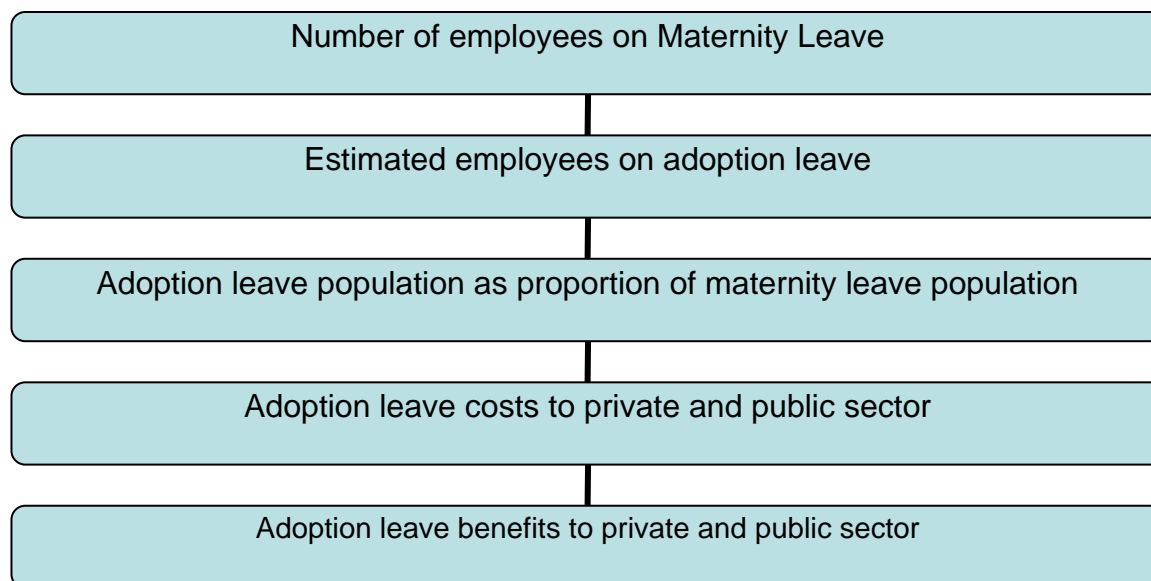
	Low	Medium	High
Total Costs	9.24	13.55	20.42
Total Benefits	6.21	9.87	13.19
Net Costs	3.03	3.69	7.22

Source: BIS analysis

E.2.3 Adoption Leave

76. In the absence of more detailed evidence, our approach in quantifying the costs and benefits from the inclusion of adoption leave is to take a proportion of the costs and benefits of maternity leave proportion to the relative size of the populations. Adoption leave is similar in nature to maternity leave, however, as there is no case directly addressing adoption leave, costs may apply to both the public and private sectors. Therefore, the result of public sector employees affected by the change in the regulations is also considered.

Figure 5. Adoption Leave methodology



77. As with the costs for adoption leave, in the absence of more detailed evidence, these are assumed to be 1.2% of the maternity leave benefits. This is based on an eligible population of 4,000¹⁸ employees taking adoption leave.

Summary of Costs and Benefits

78. Costs and benefits are derived from the same sources as for both maternity leave scenarios. A public-private sector employer split is taken from LFS.

Table 31. Summary of Costs and Benefits (£m)

Sensitivity	Low	Medium	High
Costs to business	0.16	0.23	0.36
Costs to Public Sector Employers	0.09	0.14	0.19
Total Costs	0.25	0.37	0.55
Benefits	0.12	0.18	0.24
Net Costs	0.14	0.19	0.31

Source: BIS analysis

Risks and Assumptions

79. The same risks and assumptions as for both scenarios of maternity leave apply here.

E.2.4 Parental leave

80. Parents are entitled to take up to 13 weeks annual unpaid parental leave up to a child's 5th birthday. Generally parental leave must be taken in one week blocks and no more than 4 weeks may be taken for each child per year. In addition, 21 days notice must be given to an employer, therefore parental leave is

¹⁸ Estimate based on figures published by Department for Education, Scottish Government and Welsh Assembly.

relatively more predictable than the other types of leaves and annual leave should easily be planned around it.

81. Like sickness leave and maternity leave, a parental leave case has been given by the CJEU. Consequently, the analysis of costs and benefits is relevant only for the private sector.

Population Affected

82. From prior analysis conducted in the “Impact Assessment of European Commission proposal for a directive to implement revised Framework Agreement on Parental Leave”¹⁹ we estimate the take-up of parental leave to be 8% of the eligible population of private sector employees. The assumptions for the length of parental leave taken for males and females are also based on the same source.

	Male	Female
Eligible Population (000s)	1,991	1,453
Estimated Private Sector take-up (000s)	112	82
Duration ²⁰	5	10

Source: BIS analysis

83. Assumptions are made on the awareness and take up of any additional annual leave carried over, as well as the number of employers already allowing for this practice.

	Male	Female
Existing employer compliance (000s)	79	57
Awareness (000s)	55	40
Parents taking up additional leave (000s)	44	32

Source: BIS analysis

Working Days Lost

84. The number of days of annual leave carried over is arrived at by the probability a parental leave week overlaps with a reference period.

$$\text{Pr (Parental Leave \& Reference Week)} = 1/52 = 1.9\%$$

85. This probability is then applied to the number of annual leave days accrued over parental leave duration. We are, therefore, assuming that every parent has planned their annual leave so that all their annual leave is taken minus, an amount proportionate to the time taken off for parental leave.

¹⁹ <http://www.bis.gov.uk/files/file53640.pdf>

²⁰ Labour Force Survey

Table 34. Duration and Take-up of Parental Leave

	Male	Female
Annual leave accrual (days)	0.54	1.07
Probability parental leave week coincides with reference period	0.02	0.04
A/L requiring carry over (days)	0.01	0.04

Source: BIS analysis

86. The average number of days annual leave carried over, given in Table 34, is combined with the number of employees affected, to estimate total days of absence facing employers.

Table 35. Work days lost in the private sector

	Male	Female
Average Days Carry-Over per Employee	0.01	0.04
Potential Employees Affected (000s)	44	32
Employee Days Lost (000s)	0.5	1.3

Source: BIS analysis

87. The overarching framework for analysing employer's responses to an employee's absence is used to estimate the costs to the private sector. For a more detailed description please see section D.2.1.

Table 36. Parental Leave Costs (£m)

Cost to Business	0.15
Admin Costs	0.05
Total Costs	0.20

Source: BIS analysis

Summary of Costs and Benefits

88. Benefits to employees are taken as the wage cost to firms of absent employees carrying over annual leave.

Table 37. Summary of Costs and Benefits

Sensitivity	Low	Medium	High
Costs	0.13	0.20	0.31
Benefits	0.08	0.11	0.15
Net Costs	0.05	0.09	0.16

Source: BIS analysis

Risks and assumptions

89. We implicitly assume that every parent has planned their annual leave so that all their annual leave is taken minus an amount proportionate to the time taken off for parental leave. However, given that the nature of parental leave requires a lengthy a period of planning between employee and employer all annual leave should be easily taken within an employee's annual leave reference period. Consequently, the costs and benefits given in Table 37 are more likely to be overstated rather than underestimated.

Table 38. Assumptions

Risk	Source	Low	Medium	High
Employers not permitting carry-over	-	50%	70%	90%
Awareness of rights (%)	-	60%	70%	80%
Estimated take-up (%)	-	70%	80%	90%
	Measures to Support working parents and their employers IA			
Cost of covering absence (of wages)		9%	13%	15%
Employer non-replacement of GVA	-	25%	50%	75%
Carry-over Rate			0.19	

Source: BIS

E.3.5 Ordinary Paternity leave

90. Ordinary' paternity leave (i.e. two weeks usually within the first 8 weeks of the baby's life) is not a right derived from EU legislation. It is short and should normally be possible for a father to plan leave such that paternity leave and annual leave can be taken within a leave year.

91. There is no CJEU ruling directly addressing a paternity leave case, therefore costs may be incurred in both the public and private sectors.

Population Affected

92. We consider the scenario where a father would carry over untaken annual leave that accrued whilst on paternity to be within the context of their partner experiencing an early birth.

93. Durations of ordinary paternity are far lower than for maternity leave. The following distribution of the length of time taken off for paternity leave is based on the "Maternity and Paternity Rights and Benefits: Survey of Parents 2005".

94. From this we estimate the number of fathers whose partners experience early childbirth, using the same source of evidence as for the "early birth" scenario in section _ considered under maternity leave.

Table 39. Distribution of paternity leave duration

Length (days)	0	5	10	14+
Density	21%	34%	34%	11%
Employees (000s)	84.0	136.0	136.0	44.0
Early Birth (000s)	5.9	9.5	9.5	3.1

Source: BIS analysis

95. Assumptions are made on the awareness and take up of any additional annual leave carried over as well as the number of employers already allowing for this practice.

Table 40. Distribution of paternity leave duration

Length	0	5	10	2+
Early Birth	5.9	9.5	9.5	3.1
Numbers constrained by employer (000s)	4.1	6.7	6.7	2.2
Employees aware (000s)	2.9	4.7	4.7	1.5
Number taking up of additional annual leave (000s)	2.3	3.7	3.7	1.2

Source: BIS analysis

Estimating Costs

96. The number of days of annual carried over is arrived at by the probability a paternity leave week overlaps with a reference period.

$$\text{Pr (Paternity Leave \& Reference Week)} = 1/52 = 1.9\%$$

97. This probability is then applied to the number of annual leave days accrued over the paternity leave duration. We are, therefore, assuming that every father has planned their annual leave so that they will use all of it minus an amount proportionate to the time taken off for paternity leave.

Table 41. Distribution of paternity leave duration

Length (Days)	0	5	10	14+
Probability of a work week coinciding with annual leave week	0	0.02	0.04	0.04
Days lost on paternity leave	0	0.1	0.19	0.19
Work Days lost (000's)	0	0.4	0.7	0.2

Source: BIS analysis

98. The average number of days annual leave carried over, given in the second line of Table 41, is combined with the number of employees affected, to estimate total days of absence facing employers. This is shown in Table 42, adjusted for public-private employment shares.

Table 42. Work Days lost (000's)

All	1.3
<i>in Private Sector</i>	0.9
<i>in Public Sector</i>	0.4

Source: BIS analysis

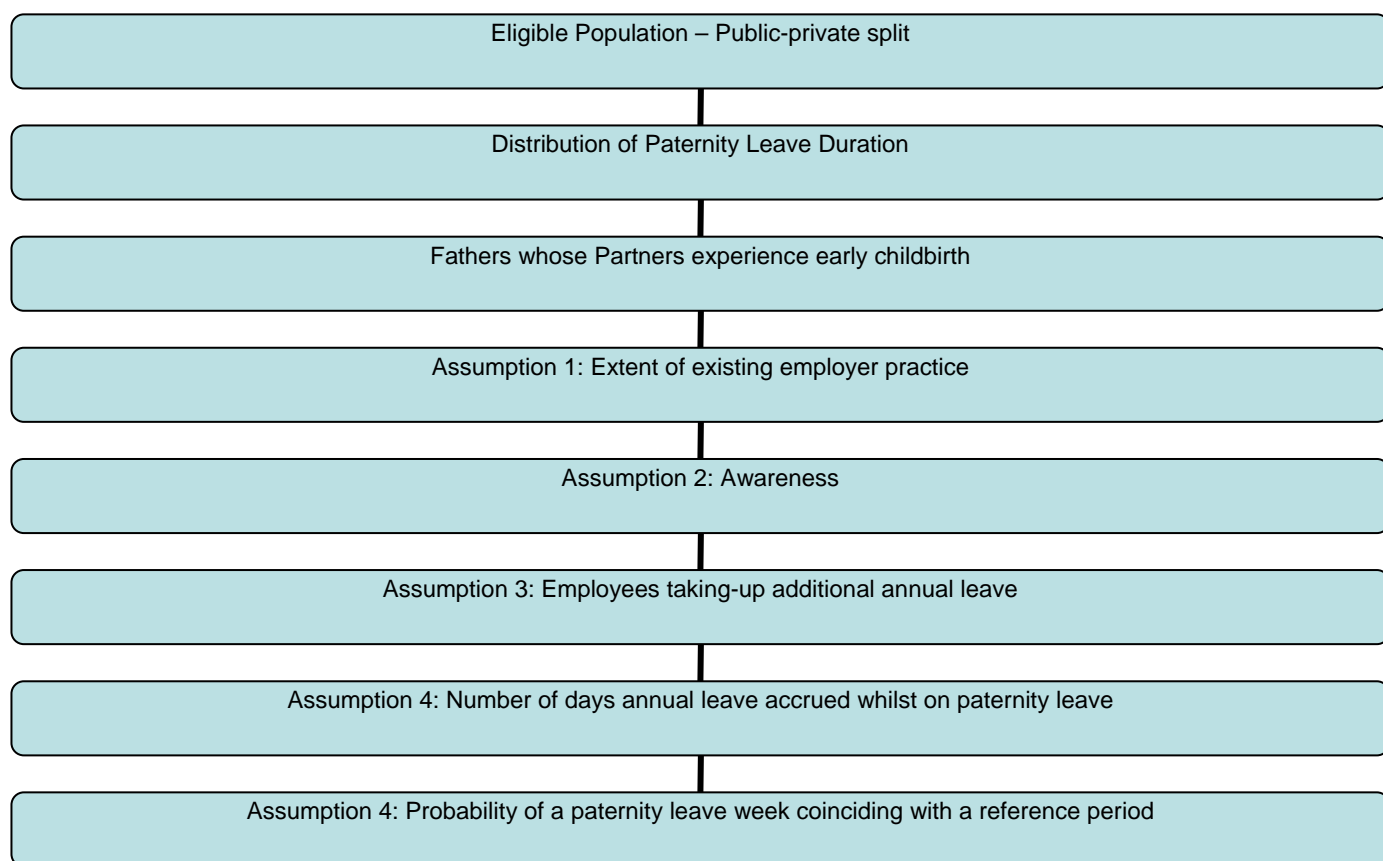
99. The overarching framework for analysing employer's responses to an employee's absence is used to estimate the costs to the private sector

Table 43. Costs (£m)

Sensitivity	Low	Medium	High
Costs to Business	0.06	0.15	0.28
Costs to Public sector employers	0.03	0.06	0.12
Total Costs	0.09	0.21	0.40

Source: BIS analysis

Figure 6. Paternity Leave methodology



Summary of Costs and Benefits

100. Benefits to employees are taken as the wage cost to firms of absent employees carrying over annual leave.

Table 44. Summary of Costs and Benefits (£m)

Sensitivity	Low	Medium	High
Costs	0.09	0.21	0.40
Benefits	0.06	0.11	0.17
Net Costs	0.03	0.10	0.23

Source: BIS analysis

Risks and Assumptions

101. We implicitly assume that every parent has planned their annual leave so that all their annual leave is taken minus an amount proportionate to the time taken off for paternity leave. However, given that the nature of paternity leave requires a lengthy a period of planning between employee and employer all annual leave should be easily taken within an employee's annual leave reference period. Consequently, the costs and benefits given in Table 44 are more likely to be overstated rather than underestimated.

Table 45. Assumptions

Risk	Source	Low	Medium	High
Employers not permitting carry-over	-	50%	70%	90%
Awareness of rights (%)	-	60%	70%	80%
Estimated take-up (%)	-	70%	80%	90%
	Measures to Support working parents and their employers IA			
Cost of covering absence (of wages)		9%	13%	15%
Employer non-replacement of GVA	-	25%	50%	75%
Carry-over Rate per week of paternity leave	-	0.019	0.019	0.019

Source: BIS

E.2.5 Additional Paternity Leave – In the case of a mother’s death

102. The population of employees eligible for additional paternity leave is estimated to be 400,000. However, the incidence of mother’s death in childbirth is thankfully very low, at around 200 per year. Consequently we expect costs to negligible and as a result they aren’t quantified.

E.2.6 Additional Paternity Leave – routine cases.

103. Additional paternity leave can be taken for up to a maximum of 26 weeks. If the father’s partner has returned to work, the leave can be taken between 20 weeks and one year after the child’s birth. Fathers may be entitled to Additional Statutory Paternity during the period of their partner’s Statutory Maternity Pay, Maternity Allowance or Statutory Adoption Pay period. In addition fathers must give 8 weeks notice to their employer if they are to take Additional paternity Leave. Consequently, in most cases this should allow for any outstanding annual leave to be planned around the duration of Additional Paternity Leave.

104. As there is no direct CJEU ruling, the impact of a change in the regulation may be felt by both the private and public sectors, consequently, costs to business and costs to the public sector are presented separately.

Population Affected

105. Our estimate of the number of employees taking up Additional Paternity Leave and the average length of is derived from the mid-points of the ranges given in the “Final Impact Assessment of Additional Paternity Leave and Pay”

Table 46. Estimates of APL			
Take-up	Lower Bound	Mid-point	Upper Bound
Fathers Take-up (000s)	10	15	19
Days Taken	10	32.5	65

Source: BIS analysis

106. After applying assumptions on existing employer practices, awareness and employee take-up of carried over annual leave, table 47 shows the number of fathers who may benefit as a result of the change in the regulations.

Table 47. Fathers Benefiting from change in regulations (000s)	All	Private	Public
Fathers on APL	15	10.59	4.41
Employers not permitting carry-over	10.5	7.413	3.087
Awareness	7.35	5.189	2.161
Take-up of carried over Annual Leave	5.88	4.151	1.729

Source: BIS analysis

107. Of this group of employees, the assumption is made that only those whose APL and reference period weeks overlap will enjoy extra annual leave in the following reference period, the same as the scenario proposed for Parental leave. Therefore, we make the assumption that fathers have planned their annual leave so that all has been taken apart from an amount proportionate to what is accrued whilst on APL. Given that 8 weeks notice is required before commencing APL the number of fathers caught out by their reference may be an overestimating the true value.

108. The methodology for calculating the rate of annual leave accrued whilst on APL has already been described in D.3.3. Our estimates shows that the average annual leave carried over per father will be 0.44 days.

Table 48. Rate of annual leave carry-over	All	Private	Public
Days Taken	32.50	32.50	32.50
Annual leave accrued	3.49	3.49	3.49
Probability a work week coincides with reference period	0.13	0.13	0.13
Days carried over	0.44	0.44	0.44

Source: BIS analysis

109. To obtain the total number of work days lost the potential beneficiaries are interacted with the rate of annual leave carry over.

Table 49. Total Work-Days Lost	All	Private	Public
Average Days Carried Over per employee	0.44	0.44	0.44
Potential Employees Affected (000s)	5.9	4.2	1.7
Total Work-Days Lost (000s)	2.6	1.8	0.8

Source: BIS analysis

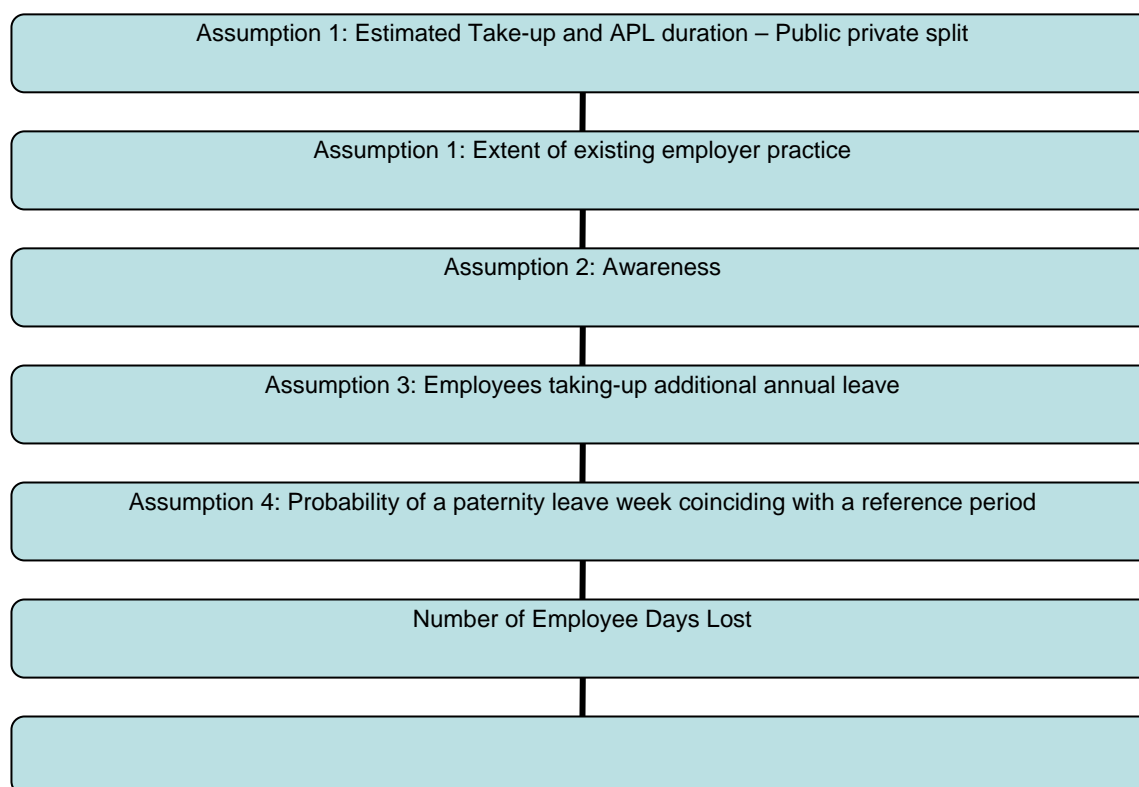
110. The overarching framework for analysing employer's responses to an employee's absence is used to estimate the costs to the private sector. Admin costs are then calculating using the same methods described in D2.3

Table 50. APL Costs (£m)

Sensitivity	Low	Medium	High
Costs to business	0.23	0.35	0.78
Costs to Public Sector Employers	0.10	0.15	0.32
Total Costs	0.33	0.50	1.10

Source: BIS analysis

Figure 7. APL methodology



Summary of Costs and Benefits

Table 51. Summary of Costs and Benefits (£m)

Sensitivity	Low	Medium	High
Costs	0.33	0.50	1.10
Benefits	0.06	0.21	0.34
Net Costs	0.27	0.29	0.76

Source: BIS analysis

Risks and Assumptions

111. We implicitly assume that every parent has planned their annual leave so that all their annual leave is taken minus an amount proportionate to the time taken off for paternity leave. However, given that the nature of paternity leave requires a lengthy a period of planning between employee and employer all annual leave should be easily taken within an employee's annual leave reference period. Consequently, the costs and benefits given in Table 51 are more likely to be overstated rather than underestimated.

Table 49. APL assumptions

Risk	Source	Low	Medium	High
Awareness of rights (%)	-	60%	70%	80%
Estimated take-up (%)	-	70%	80%	90%
	Measures to Support working parents and their employers IA			
Cost of covering absence (of wages)		9%	13%	15%
Employer non-replacement of GVA	-	25%	50%	75%
Carry-over Rate	-	0.019	0.019	0.019
Source: BIS	-			

E.2.7 Summary of Costs and Benefits for Option 2

**Table 52.
Summary of Total
Costs and
Benefits (£m)**

Option	Proposal	Cost	Benefit
	Sickness Leave (20 days)	88.14	53.8
	Maternity Leave	13.55	9.87
	Adoption Leave	0.37	0.18
	Parental Leave	0.2	0.11
Option 2)	Additional Paternity Leave	0.5	0.21
	Ordinary Paternity Leave	0.21	0.11
	Total	102.97	64.28
	Net Costs	38.70	

Source: BIS analysis

E.3 Option 3: As option 2 although principles around sickness apply to full 5.6 weeks of annual leave

112. The costs and benefits for maternity, adoption, parental, paternity and additional paternity leaves are the same as those presented for option two. Therefore, the only difference between options 1 and 2 is the amount of annual leave that the proposals will apply to in the context of sickness absence – annual leave interaction.

E.3.1 Sickness Leave - Apply changes to first 28 days of annual leave

113. The analysis and assumptions are identical to sickness leave- 20 days, explained in section D.2.1. Extending an employee's annual leave that is eligible for carry-over, by 8 days results in higher costs, part of which is within the scope of One in One Out.

Table 53. Costs

Sensitivity	Low	Medium	High
Awareness of rights (%)	63%	78%	87%
Estimated take-up (%)	10%	25%	40%
Total Work days lost (000s)	596	1,845	3,293
Cost of covering absence (of wages)	9%	13%	15%
Employer replacement of GVA	75%	50%	25%
Total cost of absence (£mn)	41.53	125.03	252.00
Admin costs	0.77	1.53	2.28
Total Cost to business	42.3	126.56	254.28

Source: BIS analysis

Carry-Over Costs

114. See D.2.1 for an explanation for the isolation of carry-over costs.

Table 54. Costs of amending the regulations

Carry-over share of annual costs	Cost (£mn)
6%	7.59
7.20%	9.11
4.80%	10.93

Source: BIS

Summary of Costs and Benefits

115. The annual costs of allowing for the rescheduling pre-planned annual leave untaken due to sickness absence is given in table 55 below. The costs arising from employees carrying over a portion of this annual leave into their next leave reference year is included within the figures.

116. In addition, a section of these costs, emanating from increasing the annual leave entitlement in scope of the proposed changes by eight days, would be in scope of OIOO. This is described in detail in Annex 3.

Table 55. Summary of Costs and Benefits (£mn)

Risk	Low	Medium	High
Costs	42.30	126.56	254.28
Benefits	34.07	75.32	80.65
Net Costs	8.23	51.24	173.62

Source: BIS analysis

Risks and Assumptions

117. Assumptions used are identical to D2.2, but it is likely that applying these changes to 28 days may be easier for employers to operate.

E.3.2 Summary of Costs and Benefits for Option 3

118. The additional costs and benefits for option 3 arise out of increasing employees' annual leave entitlement, that is eligible for carry-over, from 20 to 28 days.

Table 56. Summary of Total Costs and Benefits for option 3 (£mn)

Option	Proposal	Cost	Benefit
	Sickness Leave (28 days)	126.56	75.32
	Maternity Leave	13.55	9.87
	Adoption Leave	0.37	0.18
	Parental Leave	0.2	0.11
	Additional Paternity Leave	0.5	0.21
	Ordinary Paternity Leave	0.21	0.11
3)	One-off familiarisation costs	86.60	
	Total	227.99	85.80
	Net Costs	142.19	

Source: BIS analysis

F. Summary of preferred option

One-Off Familiarisation Costs

119. Familiarisation costs are based on the time taken for employers' HR functions to adapt to the changes in the regulations. These estimates are derived from the time taken for personnel and senior managers to adapt to the changes in the regulations, using hourly wage data from ASHE. Different assumptions are imposed on large and small workplaces and these are explained in more detail in Annex 3.

Table 57. One-off familiarisation costs

Sensitivity	Low	Medium	High
Costs to large workplaces	22.15	66.44	88.59
Private	18.77	56.32	75.09
Public	3.29	9.87	13.16
Costs to small workplaces	10.08	20.16	30.24
Private	6.34	12.69	19.03
Public	3.71	7.42	11.12
Total Cost	32.23	86.60	118.83

Source: BIS analysis

120. This option directly addresses the consequences of the CJEU rulings around sickness absence and deals with the rulings on family friendly types of leave by amending the WTR so that they are compliant. In doing this it also tries to limit the impact of the rulings around sickness to reduce the effect on business.

Table 58. Summary of Total Costs and Benefits (£mn)

Option	Proposal	Cost	Benefit
	Sickness Leave (20 days)	88.14	53.8
	Maternity Leave	13.55	9.87
	Adoption Leave	0.37	0.18
	Parental Leave	0.2	0.11
	Additional Paternity Leave	0.5	0.21
	Ordinary Paternity Leave	0.21	0.11
2)	One-off familiarisation costs	86.60	
	Total	189.54	64.28
	Net Costs	125.26	

Source: BIS analysis

121. A range of net costs for the preferred option is given below, across sensitivities.

Table 59. Summary of Total Costs and Benefits by Sensitivity

	Low	Medium	High
Total Cost	40.09	102.94	139.17
Total Benefit	30.63	64.27	70.95
Net Cost	9.45	38.66	68.21

Source: BIS analysis

G: Implementation

122. The Government has yet to decide the exact date of implementation for these measures but the common commencement dates of 1st October 2011 or 6th April 2012 are possible options.

Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

<p>Basis of the review: We will undertake interim monitoring and, where, appropriate, evaluation as the policy is implemented to ensure timely feedback to policymakers.</p>
<p>Review objective: To ensure that the UK is compliant with the principles established by CJEU judgments on the Working Time Directive and business are able to comply with the Directive.</p>
<p>Review approach and rationale: In terms of data collection methods, we will seek to a) use existing sources of data where possible (e.g. Labour Force Survey and Employment Tribunal data), b) draw from evidence provided by the Work Life Balance Survey and c) reflect both the employer and employee perspective. The evaluation needs of this review plan will be fed into a broader review of evaluations in employment relations area.</p>
<p>Baseline: Evidence from the fourth Work-Life Balance Survey will provide evidence on annual leave which should serve as a baseline, before the implementation date of this proposal.</p>
<p>Success criteria: The UK's Working Time Regulations are compliant with the Working Time Directive and the risk of infraction is removed. That business has more certainty around the interaction of sick leave and other types of leave and is compliant with the Directive.</p>
<p>Monitoring information arrangements: Monitoring will be an on-going process using available resources such as the Labour Force Survey. Other resources will be sought for the purposes of measuring impacts on employers and employees.</p>
<p>Reasons for not planning a PIR:</p>

Annex 2 – Specific Impact Tests

Small Firm Impact Test

1. Small businesses may experience a disproportionate impact on the running of their business when an individual takes leave, compared to larger businesses, particularly where small businesses do not have a dedicated HR function.

2. Survey evidence from CIPD²¹ suggests that small firm employees have on average fewer annual days sickness absence. Even so, small firms are likely to suffer disproportionately if they faced with covering for an absent employee.

Table 60. Sickness absence by workforce size

Workforce Size	Average days lost per employee
1-99	6.8
100-249	7.7
250-499	8.6
500-749	8.3
750-999	10
1,000-1,499	8.5
1,500-1,999	9.1
2,000+	10
Average	8.4

Source: CIPD Absence Management Survey 2007

3, According to data from the Department for Business Innovation and Skills SME statistics²² in 2008 there were around 1.238 million businesses in the UK employing 19.2 million employees. Around 97% (around 1.205 million) of all businesses employ fewer than 50 employees.

Table 61. Distribution of leave eligibility across workplace size

Size of Work Place	Private Sector Employees	Parental Leave	Paternity Leave	APL	Maternity Leave
1-10	23%	20%	20%	20%	16%
11-19	10%	9%	8%	8%	15%
20-24	5%	5%	5%	5%	7%
don't know but under 25	2%	2%	1%	1%	3%
25-49	14%	14%	13%	13%	12%
50-249	22%	24%	23%	24%	26%
250-499	8%	9%	9%	10%	7%
don't know but between 50 and 499	3%	3%	2%	2%	2%
500 or more	12%	16%	16%	17%	13%
Total	100%	100%	100%	100%	100%

Source: LFS Q2 2010

²¹ CIPD Absence Management, Annual Survey report 2007

²² SME Statistics for the UK and the Regions 2008, Department for Business Innovation and Skills, available at: <http://stats.bis.gov.uk/ed/sme/>

4. The table above shows that eligibility for each type of leave affected doesn't differ greatly from the overall private sector distribution of employees across firm size. Consequently, it is unlikely that any of the proposed changes will impact upon small firms more particularly

Competition Assessment

5. The proposed changes would apply to all firms and it is unlikely to affect the competitiveness of any particular sector, although for occupations that are traditionally male-dominated these proposals could have a greater impact. While such employers may have experience in administering paternity leave and pay, they are less likely to have managed longer absences as in maternity leave. Therefore, the introduction of an entitlement to paternity and additional paternity leave may have more of an impact on these employers than on employers whose workforce is predominately female.

6. In terms of absences, the costs and difficulties could be greater if the employer operates in a skilled area where there is a shortage of temporary workers.

7. Table 62 shows that inexperience dealing with maternity leave is particularly likely in the construction sector due to the lowest share of women workers. Agriculture, energy, manufacturing and transport and communications may also be disproportionately affected. However, given the fairly low number of fathers expected to take advantage of the proposals, the overall impact on these sectors will remain small, and in any case these sectors would be familiar with Statutory Paternity leave and pay, on which much of the administration for this scheme is based.

Table 62. Employees by sector and gender

Sector	All employees	Men as a proportion of all employees in each sector
Agriculture, forestry and fishing	145,040	74%
Energy and water	434,085	80%
Manufacturing	2,676,899	77%
Construction	1,349,347	85%
Distribution, hotels and restaurants	4,888,029	50%
Transport and communication	2,012,604	74%
Banking and finance	3,752,676	52%
Public admin, education and health	8,308,583	30%
Other services	1,152,168	46%
Total	24,719,431	51%

Source: ONS Labour Force Survey, Q2 2010

8. The results of the competition filter test showed that there is no need to do a detailed assessment of the impact of the proposals on competition. In the filter test, the issue of market share is not relevant because the proposals apply to all sectors of the economy and at the same time, with the total number of paternity cases per year expected to be low, the likelihood of any particular employer being affected by a case is low.

9. The proposed policies will not affect market structure or the potential of new firms to enter markets nor are the proposals expected to have an impact of firms' production decisions.

Equality Impact Assessment

10. In line with better regulation best practice and the Equalities Duties we have considered the impact of the policy proposals on minority groups. The proposals apply to all ethnic groups.

11. The Labour Force Survey gives information about employees in relation to gender, ethnicity and disability.

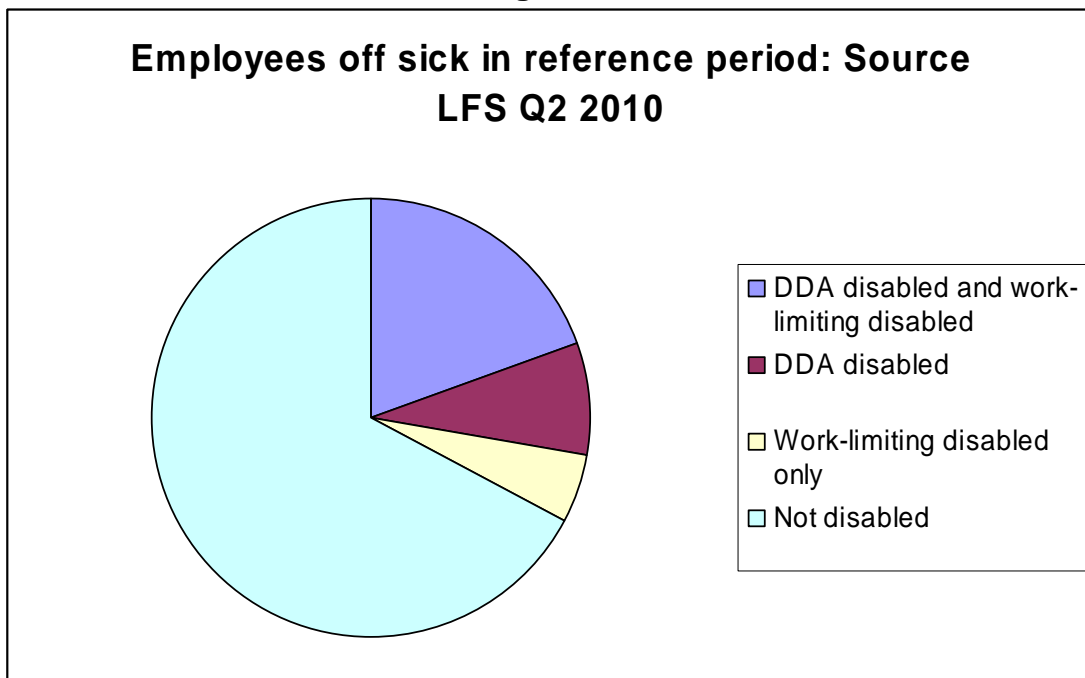
Table 63. Summary statistics on UK employees

Characteristics of UK Employees		Number	%
Sex	Male	12,604,428	50.8%
	Female	12,210,741	49.2%
	Total	24,815,169	100.0%
Ethnic group	White	22,459,622	90.6%
	Mixed	179,072	0.7%
	Asian or Asian British	1,171,884	4.7%
	Black or Black British	549,498	2.2%
	Chinese	103,142	0.4%
	Other ethnic group	337,463	1.4%
	Total	24,800,681	100.0%
	Current disability	DDA disabled and work-limiting disabled	1,294,151
DDA disabled		1,521,636	6.1%
Work-limiting disabled only		679,005	2.7%
Not disabled		21,320,377	85.9%
Total		24,815,169	100.0%
Public or private sector (reported)	Private	17,448,447	70.6%
	Public	7,259,960	29.4%
	Total	24,708,407	100.0%

Sick leave

12. It is hard to determine particular characteristics of employees taking time off sick. Some indication is given by comparing the analysis of characteristics of employees generally, with those who have reported taking time off sick in the labour force survey. The notable difference here is that the proportion of employees having reported taking time off sick who are DDA disabled and work-limiting disabled is significantly higher at just over 19% relative to 5.2%. Otherwise, proportions are largely similar. The proposed changes make it less likely that leave will be lost as a result of sickness, and this analysis suggests if anything that those DDA disabled would benefit proportionately more.

Figure 8.



13. In relation to option 2, which allows employers to limit the carryover and rescheduling of leave to 4 weeks employers will need to be aware of their obligations under the Equality Act 2010 and where they have employees who have a disability that they take on board the specific nature of the disability and do not discriminate. So in cases where the sickness absence may be attributable to disability, employers should consider whether limiting carryover or rescheduling to the 4 week entitlement would be consistent with their Equality Act obligations.

Other Leaves

14. With maternity leave, the proposed changes would clearly benefit women in terms of potential access to greater annual leave, whilst ordinary and additional paternity leaves are largely for men. It is unlikely that there will be a differential impact in terms of disability or ethnicity as a result of these changes.

Table 64. Distribution of ethnicity across eligible employees for each type of leave

Ethnicity	All Employees	Parental Leave	Paternity Leave	APL	Maternity Leave
White	90.6%	85%	82%	82%	87%
Mixed	0.7%	1%	1%	1%	2%
Asian or Asian					
British	4.7%	8%	9%	9%	4%
Black or Black					
British	2.2%	3%	4%	4%	6%
Chinese	0.4%	0%	1%	0%	0%
Other	1.4%	2%	3%	3%	1%
Total	100.0%	100%	100%	100%	100%

Source: LFS Q2 2010

One In One Out

15. Under the current policy on OIOO most of the impact of the proposed changes to the regulations falls under the EU exemption. However, ordinary and additional paternity leave is considered to be outside the EU exemption and therefore will be subject to a regulatory "out".

Table 65. OIOO scope

In scope of OIOO	Out of scope of OIOO
Additional Paternity Leave	Sickness Leave (20 days)
Ordinary Paternity Leave	Maternity Leave
Sickness Leave (8 days above 20)	Parental Leave
	Adoption Leave

Source: BIS analysis

16. Under the 'One In, One Out' rule, whereby a measure that has a net cost to business must have a measure or measures of equivalent cost removed in order to be implemented, most elements of this measure do not need a One Out because EU measures are currently out of scope of the One In, One Out rule. However, if option 3 is pursued, there are elements of this (changing annual leave carry over arrangements for ordinary paternity leave, additional paternity leave and the 8 days of sickness carry over) which are not within the exemption. The equivalent annual costs of the preferred option is £0.21mn, the equivalent out will be a proportion of the savings to business (£88.3m) from Employment Tribunal reform.

Table 66. OIOO Costs of the preferred option

	Equivalent Annual Cost (£m)
Additional Paternity Leave	0.04
Ordinary Paternity Leave	0.02
Familiarisation costs	0.15
Total OIOO Costs	0.21

Source: BIS analysis

108. As the familiarisation costs in Table 57 encompasses all the types of leave covered by the proposed changes, a portion of the private sector costs will be in scope of OIOO. These OIOO costs are arrived at by using the same proportion paternity and additional paternity leave carry-over costs to total carry-over costs (1.9%).

Table 67. Familiarisation costs in scope of OIOO

Assumptions	Low	Medium	High
Large workplaces	0.36	1.07	1.43
Small workplaces	0.12	0.24	0.36
Total cost to business	0.48	1.31	1.79

Source: BIS analysis

17. Amending the regulations so that employees are entitled to carry over annual leave which was untaken due to sickness absences to 28 rather than 20 days would have represented a movement into the scope of OIOO. The costs to business as a result of the extension to a further 8 days of annual leave entitlement, therefore, represents the portion of sickness absence costs that would have to met with and regulatory "out". Consequently, the OIOO costs are arrived at by subtracting the 20 days annual leave costs (under Option 2) from the 28 days annual leave costs (under Option 3). This issue, however, is not a concern under the preferred option, where the annual leave affected by the proposed changes is restricted to the WTD minimum entitlement of 4 weeks.

Table 68. Potential costs in scope of OIOO under Option 3 (£m)

Risk	Low	Medium	High
Option 2b) 28 days	7.40	8.88	10.66
Option 2a) 20 days	5.29	6.35	4.23
OIOO	2.12	2.54	6.43

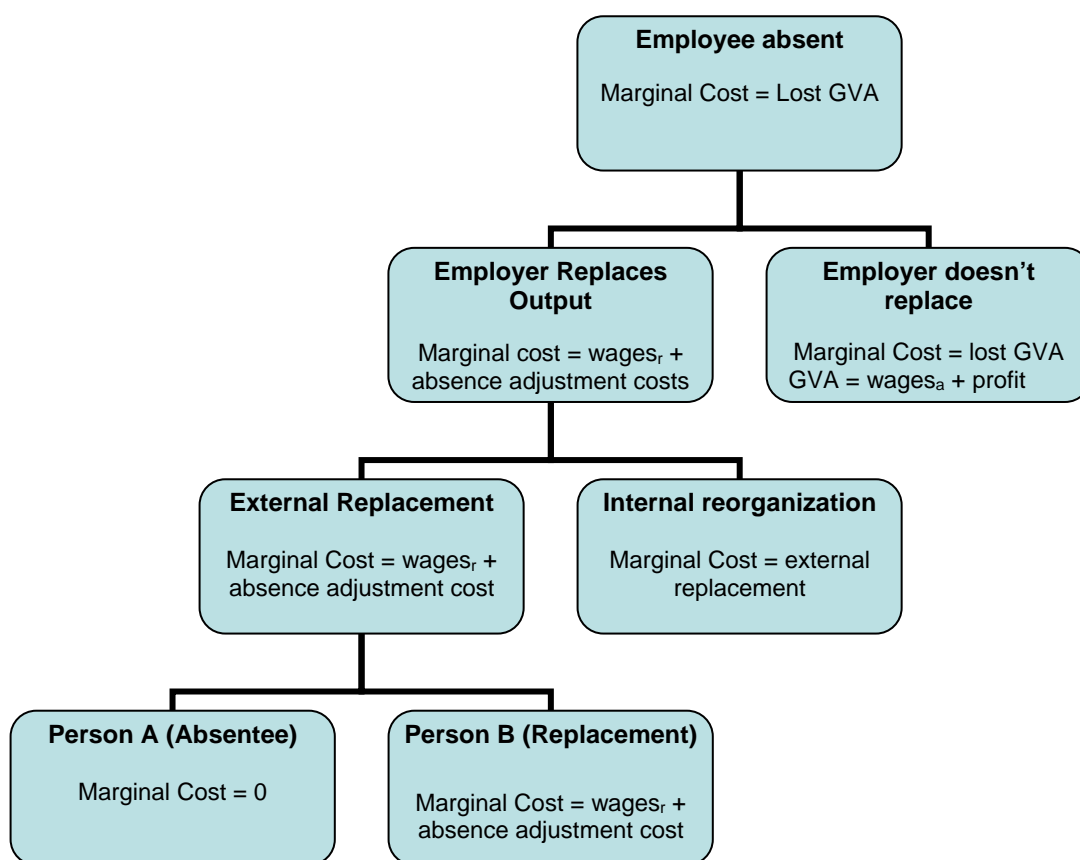
Source: BIS

Annex 3 – Technical note on the overarching methodology of estimating employee absence

A. Employers' Response

1. Employer adjustment is modelled on the decision tree below. We assume different scenarios regarding the proportion of employers who opt to replace output. We believe that this decision will not be driven purely by economic considerations. Some employers providing services, such as nursing, will have to replace absent employees - whilst in other industries no replacement may occur.
2. Therefore, the proportion of employers who do replace lost output will incur an additional wage cost and a wage mark-up, associated with covering the absent employee. We assume, for simplicity, that an employer will adjust to an absence through a temporary employee.

Figure 9. Employers' response to absence methodology



3. In addition, we are assuming that the temporary replacement for the absent employee is as productive so that the employer can replace the exact amount of output lost.
4. Our approach in calculating costs to business follows:
 - 1) Estimate the total annual wage cost to employers arising from employee absence:

total employee days affected*median wage = Initial wage costs

- 2) We use the Blue Book to determine the ratio of wage bill to GVA and upscale the annual wage loss by this ratio.

Initial wage costs*1.67 = Initial GVA loss

- 3) We assume a proportion of employers will replace lost GVA and provide different scenarios of this taking place. The GVA figures are based on wage costs, non-wage labour costs aren't incorporated as they do not measure the labour product.

GVA Loss = Initial GVA loss*y, where y= % of GVA lost through firms not responding

- 4) For those employers that do replace lost output, we assume all GVA is replaced but they incur an extra set of wage costs and an adjustment cost as a result of finding cover for the absent employee. These wage costs are based on total labour costs based on ASHE data.

Initial labour costs = (Initial wage costs)*1.21

Additional labour costs = (Initial labour costs*y)*employee adjustment ,

The employee adjustment represents the mark-up on labour costs that firms face when covering for an absent employee.

- 5) Finally, we estimate the recurring administration costs associated with changes to regulation, these are described in section D.2.1.

Total costs to employers = GVA Loss (employers not replacing) + Additional Wage Costs (employers replacing) + adjustment for absent employee (employers replacing) + admin/familiarisation costs

B. Benefits

Benefits to employees are proxied by their wage, consequently benefits are calculated as:

work days affected*median daily wage = benefits to employees

Wage data is based on ASHE figures.

C. Admin Costs

Administration costs represent the extra time-taken to arrange annual leave-carry over and the monitoring of the amount of annual leave held by employees across year.

- 1) Assumptions are made on the time taken for large and small workplaces to account for the practices described above. The split between workplace size is derived from a distribution taken from the LFS.

Table 69. Assumptions for calculating admin costs	Low	Medium	High
			Clerk 30 mins, personnel manager 30 mins
Large firms (64% ²³)	Clerk 15 mins	-	
Small firms (36%)	-	0.25 days Manager and Senior Personnel	-
Source: BIS analysis			

- 2) Estimates of total labour costs are informed by ASHE data for managers and account clerks.

²³ The distribution of workplace size is taken from the LFS Q2 2010

Table 70. Total labour costs for large and small firms (£)

Median hourly total labour costs (£)

Large Firms	
personnel manager [SOC 1135]	28.13
accounts/wages clerk [SOC 4122]	14.02
Small Firms	
"managers and senior" (Code 1)	22.77

Source: BIS analysis using ASHE data

3) Admin costs per absence are arrived at by:

Admin costs per absence = median hourly wage*admin time taken

Table 71. Assumptions for calculating admin costs (£)

	Low	Medium	High
Large firms (64%)	3.50	12.29	21.07579037
		Average of low & medium	
Small firms (36%)	26.34205	32.93	39.51
	20% of medium		20% of medium

Source: BIS analysis

4) Finally this is combined with the number of total absent employee days

Admin costs = admin cost per absence*number of total absent employee days

D. Familiarisation Costs

Familiarisation costs are based on the time taken by employers to incorporate the changes in business practice which the policy proposal requires. These costs are applied to all enterprises with more than one employee and encompass all of proposed changes under the preferred option.

1): According to data from the Department for Business Innovation and Skills SME statistics²⁴ in 2008 there were around 1.238 million businesses

2) The distribution of employees across workplace and the public-private employee split is taken from the LFS Q2 2010:

24 SME Statistics for the UK and the Regions 2008, Department for Business Innovation and Skills, available at: <http://stats.bis.gov.uk/ed/sme/>

Table 72. One-off Familiarisation costs (£m)		Private Sector	Public Sector	All
Distribution of Employees across Workplaces		71%	29%	100%
64%	Large Firms	0.558912	0.228288	0.7872
36%	Small Firms	0.314388	0.128412	0.4428

Source: BIS analysis using LFS Q2 2010

3) Assumptions are made on the time taken for small and large workplaces to accommodate the impact of the proposed changes:

Table 73. Familiarisation costs assumptions	Low	Medium	High
Large Firms (Personnel Manager)	1 hour	2 hours	4 hours
Personnel Manager- hourly total labour cost	£28.13	£56.27	£84.40
Small Firms (Senior Manager)	1 hour	2 hours	3 hours
Senior Manager- hourly total labour cost	£22.77	£45.53	£91.07

Source: BIS analysis using ASHE data

4) This is combined with estimates of the median wage, from ASHE data, of personnel and senior managers. The total labour costs under each sensitivity are then multiplied by the number of employers under each category presented in Table 73:

One-off costs = time taken*hourly labour costs*number of employers

Table 74. Familiarisation costs (£m)			
Sensitivity	Low	Medium	High
Costs to large workplaces	22.15	66.44	88.59
Private	18.77	56.32	75.09
Public	3.29	9.87	13.16
Costs to small workplaces	10.08	20.16	30.24
Private	6.34	12.69	19.03
Public	3.71	7.42	11.12
Total Cost	32.23	86.60	118.83

Source: BIS analysis

E. Employee Days Affected

1. Sickness

1. Surveys from the CBI²⁵, CIPD²⁶ and EEF²⁷ provided evidence on the average number of days lost to sickness absence per employee annually. Some of this data allows for a public-private sector split and the figures in each of these surveys corroborate themselves. In our calculations we take the average of the CBI and CIPD figures.

2. Working days per employee are calculated as:

$$\begin{aligned}\text{Work Days} &= 365 - \text{Weekends} \\ 261 &= 365 - 104\end{aligned}$$

3. We calculate a sick days risk i.e. the probability of an employee falling sick on a work day:

$$= \# \text{ average sick days} / \# \text{ of work days}$$

4. We take the annual leave rate i.e. the probability of an employee being on annual leave:

$$= 20 \text{ (or 28)} / \# \text{ work days}$$

5. Annual Leave – Sickness Leave Risk Factor , i.e. the probability that an employee’s sickness and annual coincide on the same working day:

$$= \text{Pr (Sick)} * \text{Pr (Annual Leave)}$$

We are assuming sickness and annual leave to be independent events, i.e. the conditional probability distributions are the same as the marginal probability distributions. This means we are assuming no gaming of the system where employees will falsely claim to be sick whilst on annual leave; this is specific to the Pereda ruling.

6. The number of employees is taken from the LFS Q4-2009 and multiplied by 261 (number of work days) so that we calculate:

$$\text{Total work days} = \# \text{ employees} * \# \text{ work days}$$

7. Next, we estimate the number of work days affected by coincidental sickness and annual leave. Total number of work days is multiplied by the probability of being both sick and on annual leave on the same day; this gives the total number of days that *could* be carried over.

$$\text{Number of Work Days Affected} = \text{Total Work-days} * \text{Pr (Annual \& Sickness)}$$

LFS Analysis

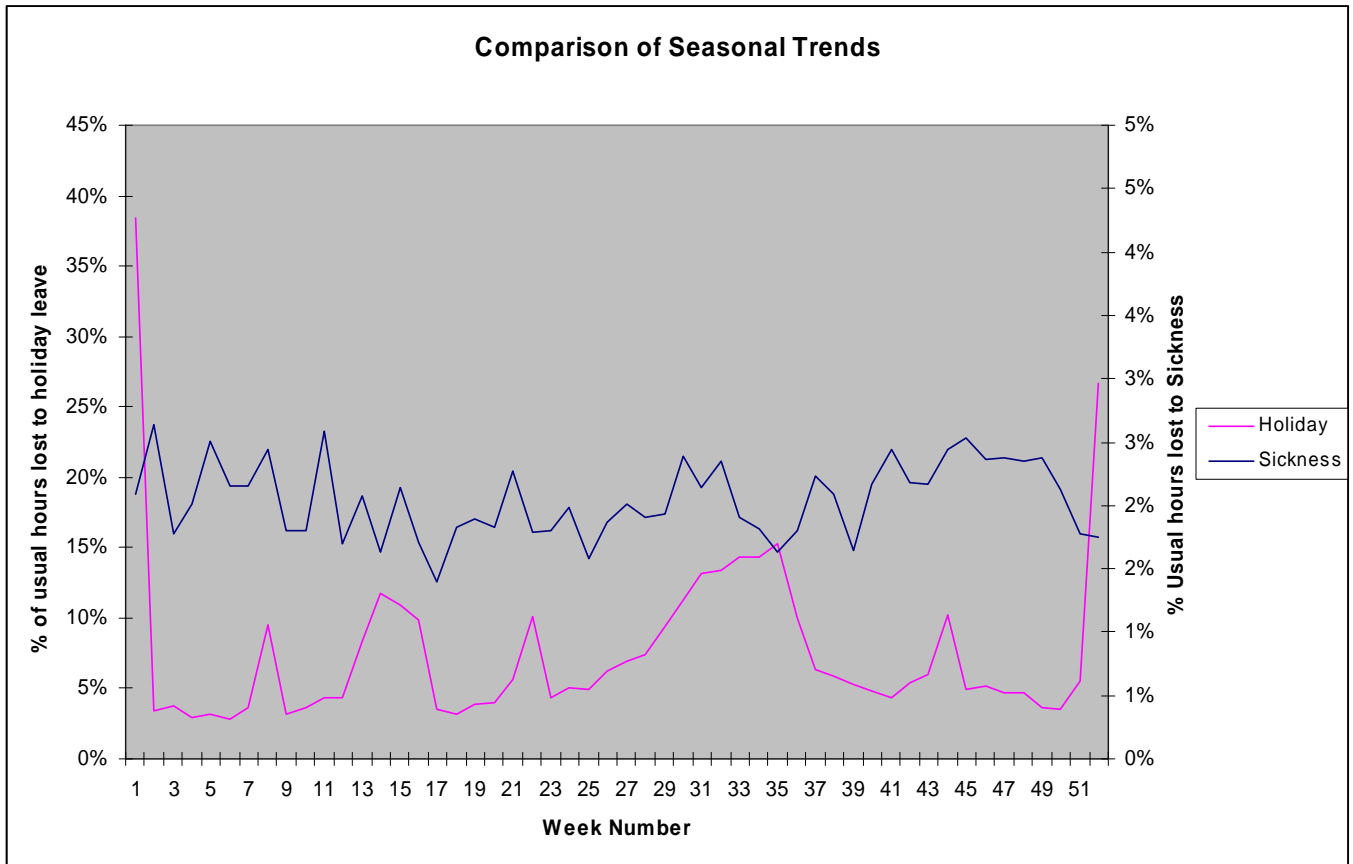
From LFS we are able to obtain data on usual actual hours worked. If actual hours worked are lower than usual hours, reasons include “sickness” and “holiday and other”. Thus, we have taken the percentage of actual hours lost to sickness and holiday across each week of the year.

²⁵ On the path to recovery: Absence and workplace health survey 2010, CBI,

²⁶ Absence Management: Annual Survey 2008, CIPD,

²⁷ Sickness Absence and Rehabilitation Survey 2010, EEF

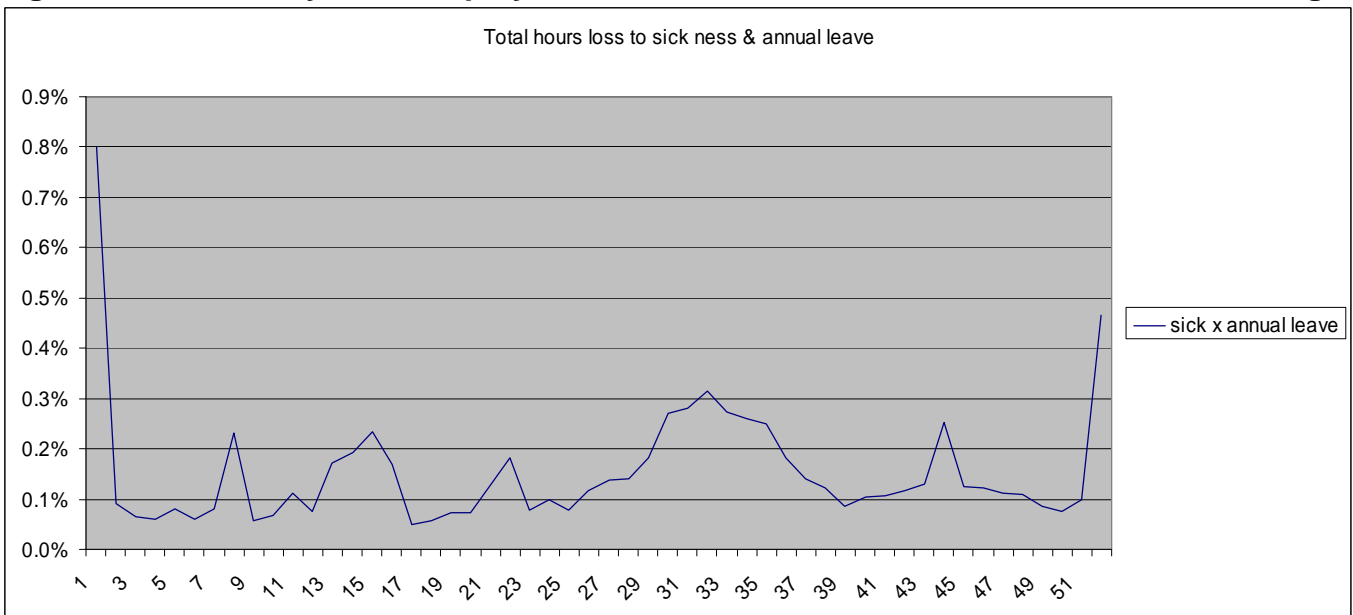
Figure 10. Holiday and sickness absence seasonal trends



Source: BIS analysis from LFS Q1-Q4 2009

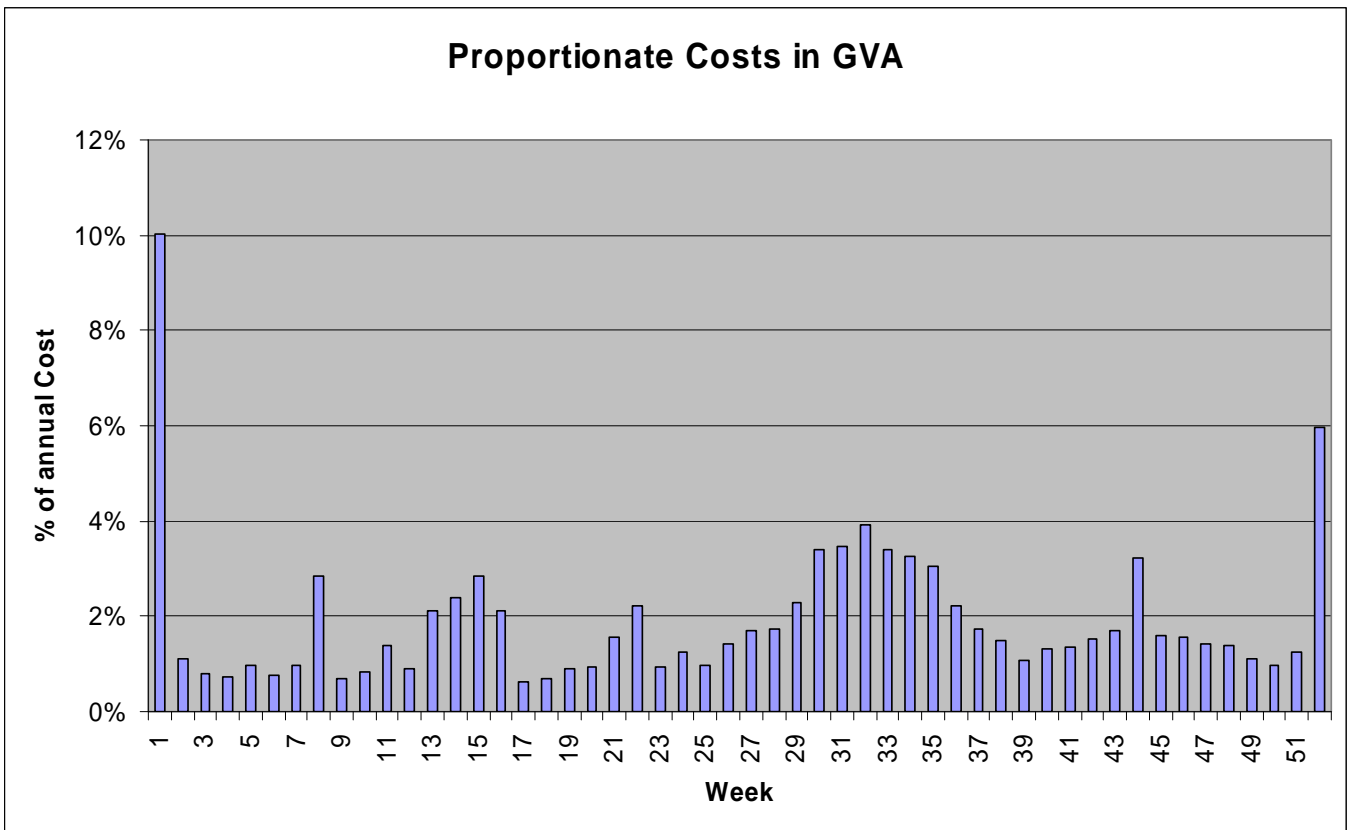
The probability of an hour lost to annual leave and sickness leave coinciding is calculated by multiplying these probabilities.

Figure 11. Probability of an employee work hour lost to sickness and annual coinciding



Source: BIS analysis from LFS Q1-Q4 2009

Using ASHE wage data, the expected number of hours lost to sickness and annual leave occurring at the same is multiplied by average hourly wage, to give a potential GVA loss. This is applied across the year so that Figure shows the proportionate loss GVA from rescheduling annual leave by week of the year.



Source: BIS analysis from Q1-Q4 2009

2. Maternity Leave

Two scenarios are considered:

A. Mothers experiencing early births

- In this scenario we are looking at mothers who take maternity leave early due to their babies arriving ahead of expected due date, and who as a result do not take any pre planned annual leave that they were on. The proportion of mothers on maternity leave who experience an early birth is taken from “Maternity rights and mothers’ employment decisions²⁸”.

Eligible population = 330,000

Mothers experiencing an early birth = $330,000 * 7\% = 23310$

- The distribution of annual leave is derived from survey evidence provided by “Maternity and Paternity Rights and Benefits: Survey of Parents 2005”.

- Consequently, they may not be able to reschedule this annual leave if they don’t have a chance in the reference year and b) their employer refuses to allow them to carry the untaken annual leave into a subsequent annual leave year. This is shown in the last bar of Figure 1 and we make assumptions on the proportion of employers already allowing for the carry over of annual to avoid counting deadweight in our costs.

- Mothers constrained by employer = $23,310 * 50\%$

- We separate out mothers who don’t return to work

- We arrive at a probability that 1 day of untaken pre planned annual leave will cross a reference period, based on how much of a year is taken up by maternity leave. This neglects how annual leave reference periods are distributed across the year.

Carry over rate = maternity leave length (weeks) / 52

- This carry over rate is applied to the number of days we assume is untaken across the maternity leave duration distribution:

Days Carried Over = Annual Leave "lost" * Carry over rate

- Work Days carried over = Days carried over * Returning mothers

From this we use our method of employer adjustment to estimate the loss of output employers will face.

-Mothers who don't return to employment will receive compensation for their untaken annual leave.

- We are assuming all mothers have planned their annual leave so that they will take their whole allowance in their reference year.

-We are assuming mothers take their planned maternity leave regardless of whether they experience early birth.

- We are assuming mothers will have the opportunity to take their untaken leave upon return from maternity leave.

-Mothers who don't return to employment will receive compensation for their untaken annual leave.

B. Mothers on long durations of maternity leave

We are looking at mothers whose length of maternity will require them carrying over annual leave into their next reference (annual leave) year i.e. 47+ weeks.

We have taken January and April as the months where this would occur, so that 16% of mothers above will be affected by this

Returning and non-returning mothers are separated

It is assumed that mothers taking between 40 and 50 weeks of maternity leave will carry over 10 days of annual leave whilst mothers taking 52 week will carry over 28 days.

- We try to consider only those mothers whose employers will restrict any carry over of annual leave when calculating costs.

- We've assumed that mothers will be taking all the leave they're able to in that year i.e. once they've finished maternity leave they're on annual leave.

3. Adoption Leave

The same assumptions as the ones imposed on the maternity leave reflect the fact that adoption and maternity leave are similar in nature. The adoption leave total cost is just a proportion (1.26%), given by the relative populations (4,000/ 330,000); of the maternity leave total cost.

4. Parental Leave

As the distribution of the duration of parental leave taken is far lower than for maternity leave, the analysis looks at the number of days *accrued* whilst on parental leave. This accrual is then adjusted for the probability that the week/s taken for parental leave will cross the reference period.

The assumptions and methodology for parental leave mirror those for paternity leave

5. Paternity Leave

Similarly, paternity leave durations should be far shorter than those for maternity leave. Consequently, a father whose partner has experienced an early birth would be very likely to have the opportunity to any untaken annual leave upon their return to work.

The scenario considered would be when a father's partner experiences early birth and the father is unable to take the annual leave they *accrue* as they caught by their reference period.

Therefore, days accrued whilst on paternity leave are adjusted for the probability that a paternity leave week/s coincides with a new reference period.

From this we estimate the number of fathers whose partners experience early childbirth, using the same source of evidence as for the "early birth" scenario considered under maternity leave.

Assumptions are made on the awareness and take up of any additional annual leave carried over as well as the number of employers already allowing for this practice

The number of days of annual carried over is arrived at by the probability a paternity leave week overlaps with a reference period.

$\Pr(\text{paternity leave \& reference period}) = 1/52$

This probability is then applied to the number of days accrued over paternity leave duration. Therefore, we are assuming that every father has planned their annual leave so that they will use all their annual leave minus an amount proportionate to the time taken off for paternity leave.

Annual leave carried over = $\Pr(\text{paternity leave \& reference period}) * \text{annual leave accrued over paternity leave}$

Therefore, total days lost

Total Work days lost = Annual leave carried over * # employees affected

7. Additional Paternity Leave

The assumptions for APL mirror those for paternity leave

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