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Optimal Economics

Model Changes to Building Standards Fees

Report

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1.1 Context

1.1.1 In March 2016 Optimal Economics completed for Building Standards Division (BSD) a report which modelled a range of options for possible changes to the building standards fees system and which considered the individual and collective impacts of possible changes.

1.1.2 The changes were under consideration both as a means of securing funding for BSD from fee income and in order to provide additional resources to local authorities to support service improvement. A clear objective of the changes was thus to increase income from fees.

1.1.3 The Optimal report considered the impact of increases to the minimum fees and to changes in the level of fees charged for projects with a value above that attracting the minimum fee. The report also considered the impact of changes to the fee discounts given for submission of certificates of design and construction.

1.1.4 In relation to the main fee structure that report identified a series of options involving different combinations of minimum fee change and changes to fees for higher value work. The analysis indicated how these changes would impact on projected income to local authority building standards departments and considered other impacts of the proposed changes.

1.2 Study Brief

1.2.1 Following submission of the report discussed above, BSD identified the elements of a preferred fee structure. These elements are:

- That the minimum building warrant application fee would be raised by £50 with this sum being added to all building warrant fees. This adjustment alone is expected to increase fee income by about £2 million.
- The minimum fee for amendments to building warrant should be increased from £50 to £100.
- Fixed fees for conversion only building warrant applications and demolition only building warrant applications should be increased from £100 to £150.
- The fixed fee for applications to extend the validity of a building warrant should be increased from £50 to £100.
- The “surcharged” fees for unauthorised work done without a building warrant should be increased to cover additional verification work. The fees for a “late building warrant” should be increased from 125% to 200% of normal warrant fee and the fees for a “completion certificate where no building warrant was obtained” should be increased from 125% to 300% of the normal warrant fee.

1.2.2 BSD have identified a requirement for an increase in fee income of around £3.3 million to provide the additional resources mentioned in paragraph 1.1.2. It will, therefore, be necessary to increase fees by more than just the additional £50 detailed above. Therefore the incremental fee steps for the fee value bands will need to be increased to make generate an additional £1.3m per annum after allowance for the effects of changes to certification discounts.

1.2.3 The brief states that the increases in the costs of building warrants above the minimum value should be proportionality greatest for smaller projects where past research has shown that fee income does not generally cover the costs of verification. It is further suggested that the incremental costs of warrants for projects with a value of over £100,000 should be considered after the impacts of changes in the fees for smaller projects have been analysed and set so as to generate no more than the desired income increase.

1.2.4 The brief also states that changes are proposed in relation to discounts on fees for the submission of certificates of design and construction. The current fee arrangements for use of certificates of design and construction are as follows:

- Where a certificate of design is provided from an approved certifier a discount of 10% of the fee is given for each certificate covering a section of the functional standards up to a maximum of 60% of the fee (a 1% discount is given for a certificate covering a single item in a section)
- Where a certificate of construction is provided a discount of 1% is given for each certificate covering a defined trade or installation, up to a maximum of 20%.

1.2.5 The proposed discount system involves various fixed discount sums for projects up to £100,000 in value with a percentage scale applying above that level. The proposed discount scale is as set out in Table 1.1 below.

Table 1.1 Proposed Certification Discounts

Value of work bands	Design schemes		Construction schemes	
	Building structures	Energy	Drainage, heating and plumbing	Electrical installations
£0 to £5,000	£30	£30	£15	£15
£5,001 to £10,000	£40	£40	£15	£15
£10,001 to £20,000	£65	£65	£25	£25
£20,001 to £100,000	£100	£100	£35	£35
£100,001 and more	10% of fee	10% of fee	3% of fee	3% of fee

1.2.6 The study brief requires the modelling of fee structures which embody the above principles and which generate the required fee income increase. The modelling work was to set out at a Scotland level:

- Baseline income (i.e. the existing framework)
- The impact on fee income of each of the changes set out in the brief relating to changes in fixed fees and minimum fees
- Alternative options (to be identified in the analysis) for scale increases above the minimum fees with reference to the collective impact of measures
- The impact of options for changes to certification discounts
- The combined impact of changes as discussed under points 2,3 and 4 above

1.2.7 The brief also calls for modelling of these impacts at a local authority level. In analysing the impact at the local authority level it is important to note that it is not possible, given available information, to model at the same level of detail locally as nationally. Thus the individual authority data provided by BSD does not include information on numbers of warrants for demolition, extensions or conversions. Moreover, we are not aware of readily available local level data on levels of certification.

1.2.8 In the light of this, the approach taken was to assume that warrants for demolition extensions and conversions and certificates of design and construction were distributed in proportion to building warrants.

1.2.9 Following discussion with BSD in relation to analysis at the local authority level, we focussed on identifying and reporting on differences between types of authorities (specifically those handling different numbers of annual cases and those with different levels of urbanisation/rurality). A comparison at the level of individual authorities is always subject to the effects of “one off” factors whereas establishing

whether or not there are systematic difference between types of authority is much greater importance.

2.1 Modelling

2.1.1 The modelling work was carried out in Excel. The distribution of warrants by type and value in recent years was calculated from Key Performance Outcome data provided by BSD. Using this data, the model estimated the number of warrants in each value band in the fee structure and estimated total income from each band by multiplying the number of warrants by the fee paid in that band. The impact of certification was modelled by combining the current discounts with data on the proportion of applications accompanied by warrants of each type: thus the calculation assumed that 50% of warrants were accompanied by a certificate of design (structure), 8% by a certificate of design (energy) and 20% by certificates of construction for drainage and for electrical.

2.1.2 The above calculation generated the baseline income estimate; that is, the projected income under the current fee structure.

2.1.3 The projected income was then modelled using core assumptions in accord with the fee rate proposals set out above with regard to fixed fee increases. Allowance was also made for certification discounts and for increased levels of certification uptake (a 10% increase in the use of certification of design and a 25% increase in the use of certification of construction).

2.1.4 Alternative increases in the incremental fee scale were then modelled in combination with the above assumptions and the resulting increases in fee income were established.

2.1.5 In the light of the above analysis, and discussions of results with BSD, a short list of options which had the potential to meet the requirements of the brief was identified. The results for those options are set out below. One of these options was identified as the preferred option.

2.1.6 The impact of this preferred option on income was analysed for groups of local authorities. Data on the distribution of warrants by project value was obtained for all local authorities from the Key Performance Indicator Returns. Authorities were then grouped into three size categories by annual number of warrants (not population): these were large (1,500 or more warrants per annum); medium (1,000 to 1,499 warrants); and small (under 1,000 warrants). The authorities in each classification are listed in Appendix 2.

2.1.7 The Scottish Government's six-fold urban/rural classification of local areas was used to group Local Authorities into three groups according to how the population was distributed between areas in each authority. The resulting groups of authorities were termed predominantly urban areas, predominantly rural areas and predominantly remote areas. In addition, the four main cities were separated out in the analysis. The authorities in each classification are also listed in Appendix 2. The impacts of the fee changes were modelled for these groups.

2.2 Results

2.2.1 Three fee structure options were identified which could potentially meet the BSD aims of delivering an increase in fee income for Building Standards of around £3.3 million while incorporating the core changes set out in the study brief and raising most of the new income from smaller projects.

2.2.2 The options incorporated the core elements:

- An increase in all building warrant application fees of £50 thus raising the minimum to £150
- An increase of £50 in the fees for warrant applications for conversions only and demolitions only
- An increase of £50 in the minimum fee for amendments to warrants
- An increase of £50 in the fee for an application to extend the validity of a building warrant
- An increase in the minimum building warrant fee to £150 from £100
- An increase in the “starting rate” of £50 for all warrants above the minimum.
- The certification discounts as set out in Table 1.1.

2.2.3 The options were as follows:

- Option 1 involved an increase of £3 to the existing warrant fee “steps” up to a project value of £20,000 (e.g. for warrants for projects between £5,000 and £20,000 the increase in the fee for each £500 of project value is raised from £15 to £18 and so on). For projects with a value of over £20,000 the increase in the fee step is £2.
- Option 2 involved an increase of £4 to the existing warrant fee “steps” up to a project value of £20,000 (e.g. for warrants for project between £5,000 and £20,000 the increase in the fee for each £500 of project value is raised from £15 to £19 and so on). For projects with a value of over £20,000 the increase in the fee step is £3.
- Option 3 involved an increase of £5 to the existing warrant fee “steps” up for projects up to £20,000 (e.g. for warrants for project between £5,000 and £20,000 the increase in the fee for each £500 of project value is raised from £15 to £20 and so on). For projects with a value of over £20,000 the increase in the fee step is £4.

2.2.4 The net income gain was calculated as the difference between the baseline modelled annual income and the projected income from under each option. The results (at a Scotland level) for each option are shown in Table 2.1

Table 2.1

Option	Change in Projected Annual Income
Option 1 Step fee increase +£3 up to value of £20,000 +£2 for value over £20,000	+£2.97 million
Option 2 Step fee increase +£4 up to value of £20,000 +£3 for value over £20,000	+£3.54 million
Option 3 Step fee increase +£5 up to value of £20,000 +£4 for value over £20,000	+£4.1 million

2.2.5 It is difficult to be sure of the impact of the increased charges for late warrants and completion certificates where no warrant was obtained. Based on current levels of cases in these categories, the changes could produce around £800,000 of extra annual income. This gain would be less if the changes, as intended, reduced the incidence of unauthorised work.

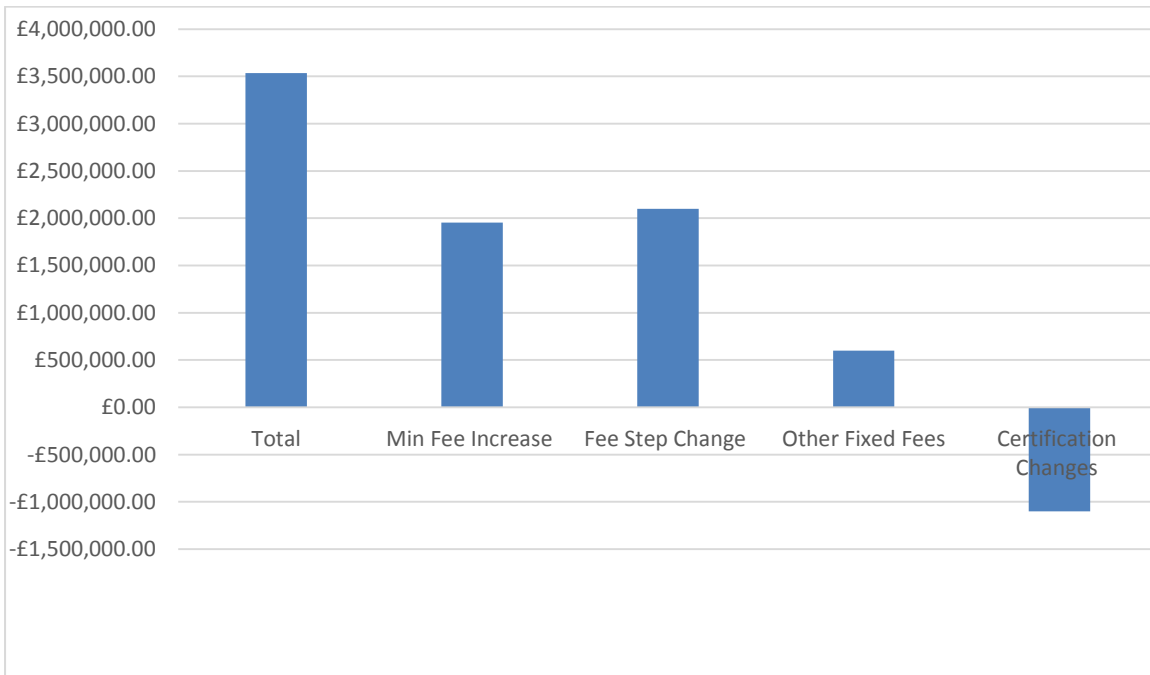
2.2.6 In the light of the above results, further analysis was carried out on Option 2, the option which most closely meets the stated aims of BSD.

2.2.7 Figure 2.1 shows the total impact of Option 2 and shows separately the impact on income of the following elements:

- The increase in the minimum fee
- The increase in other fixed fees
- The change in the fee steps
- The changes to certification discounts (combined impact of rate changes and take up increase).

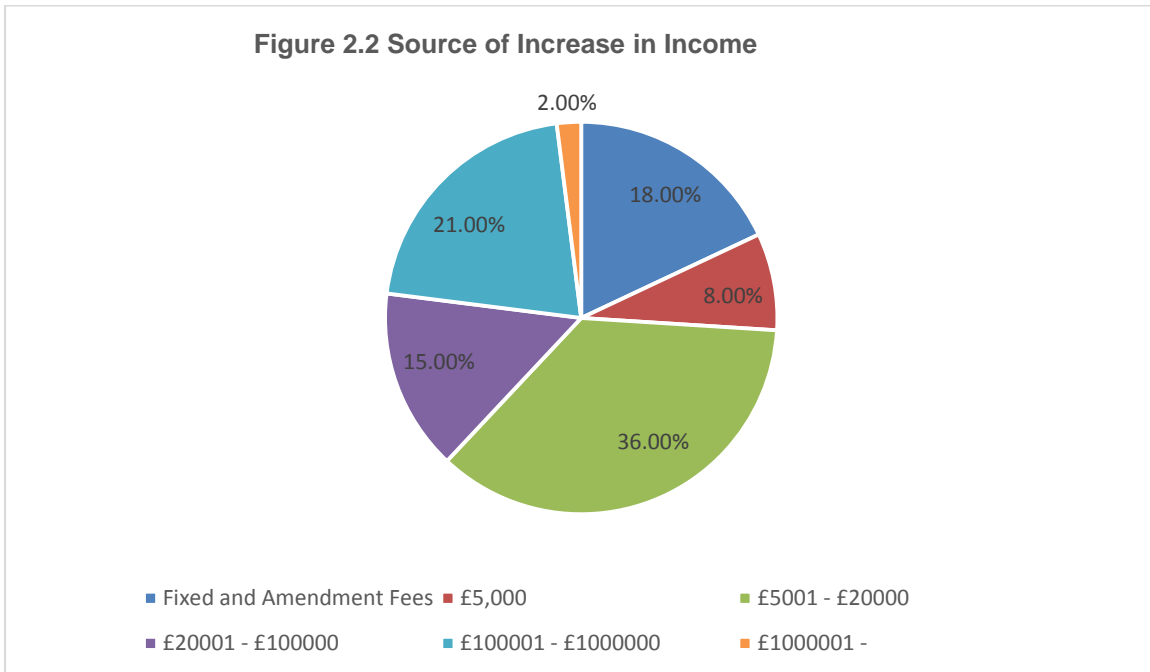
2.2.8 It can be seen that the minimum fee increase produces around £1.9 million of extra income while the proposed change in the fee steps generates £2.1 million. Other fixed fee increases and changes to amendments to warrants add just over £0.6 million. The gross gain of £4.6 million is partly offset by a loss of £1.1 million due to more generous discounts for certification and increased take up.

Figure 2.1 Impact of Fee Changes



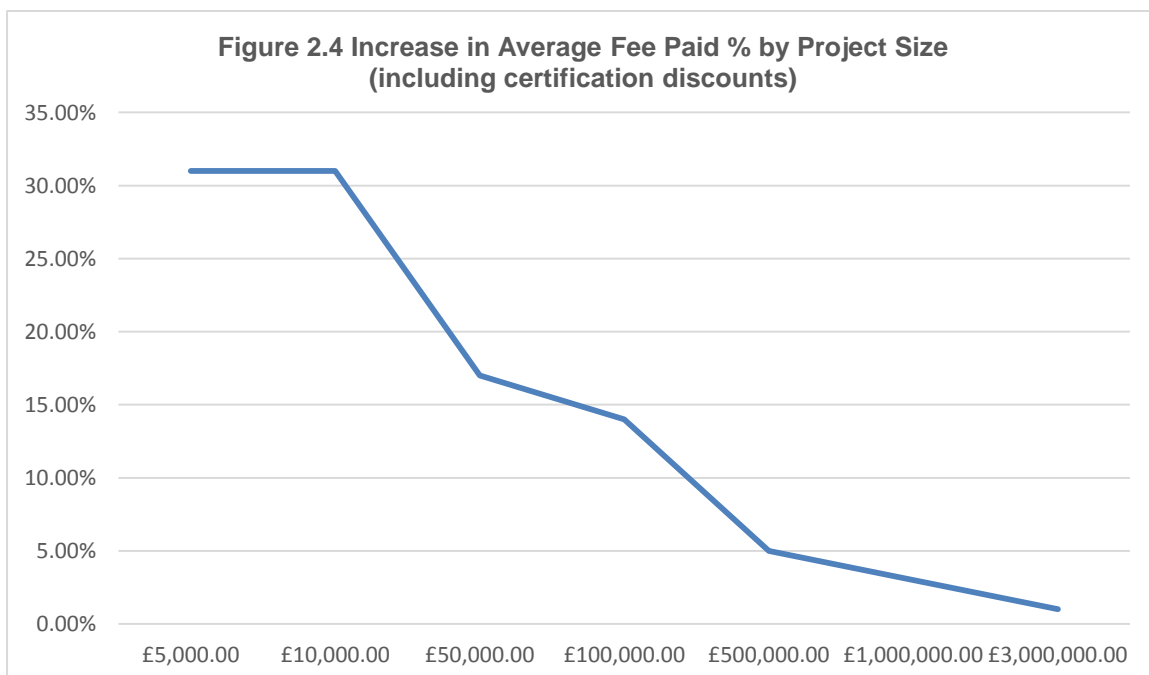
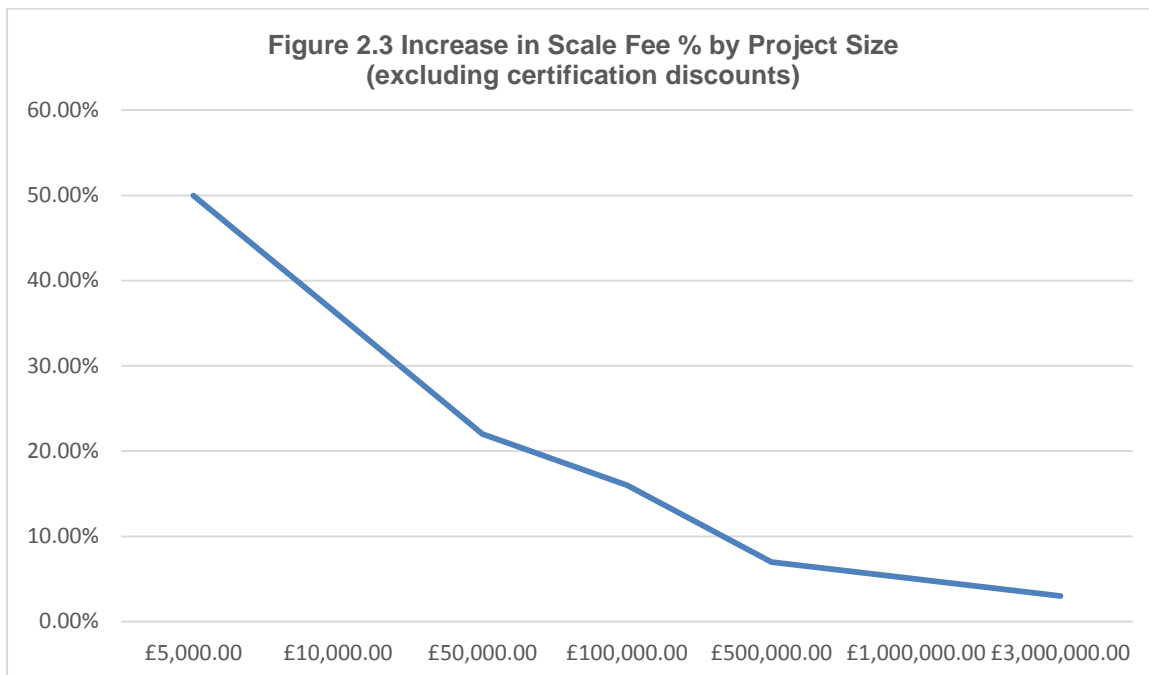
2.2.9 As Figure 2.2 shows, most of the increase in income (62%) is provided by the increase in fixed fees and fees for projects with a value of under £20,000. Projects with a value of over £1 million provide only 2% of the income increase (while providing about 33% of all income).

Figure 2.2 Source of Increase in Income



2.2.10 Related to the issue of the sources of increased fees, the differential impact on full scale fees for projects of different sizes is shown in Figure 2.3. The maximum fee increase is 50% for the smallest projects. The increase falls to 16% for projects

of around £100,000 and is 5% for projects with a value of £1 million. When project size reaches over £3 million (e.g. a medium sized housing development) the fee increase is only 3%.



2.2.11 When account is taken of the likely impact of certification discounts the increases are reduced at all levels and notably at the lower end of the scale. Figure 2.4 shows the increase in estimated average fees paid arising from the changes when account is taken of certification. Assuming an average take up of certification, projects with a value of £5,000 gain particularly because the use of fixed sum

discounts is especially beneficial for small projects and partly offsets the proportionately large increase in the basic fee.

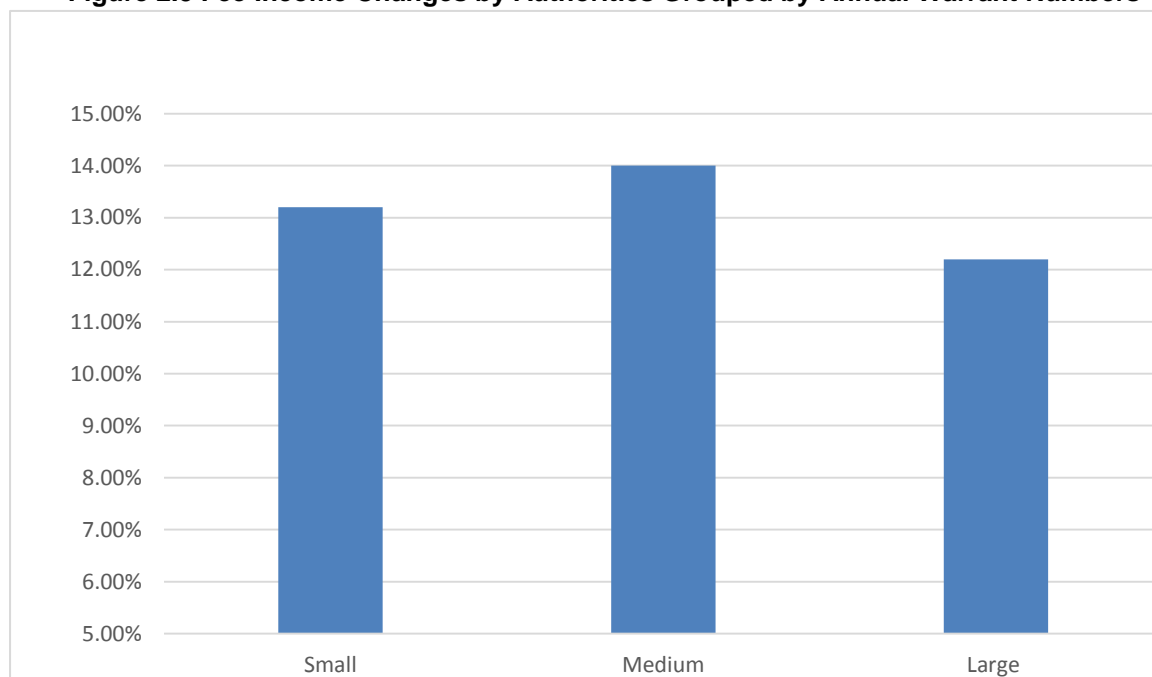
2.2.12 A full fee scale is provided in the appendix

2.3 Variation between authorities

2.3.1 As explained in Section one, modelling was also carried out for three sets of authorities grouped by annual number of warrants and four groups by urban/rural classification. Data were not available at the authority level for demolitions, conversion and extensions of building warrant validity so it was assumed that these were distributed between authorities in proportion to the distribution of building warrants.

2.3.2 Figures 2.5 and 2,6 show the impact on fee income for the above groups of the “full set” of changes to minimum fees, fixed fees and fee steps for each group.

Figure 2.5 Fee Income Changes by Authorities Grouped by Annual Warrant Numbers



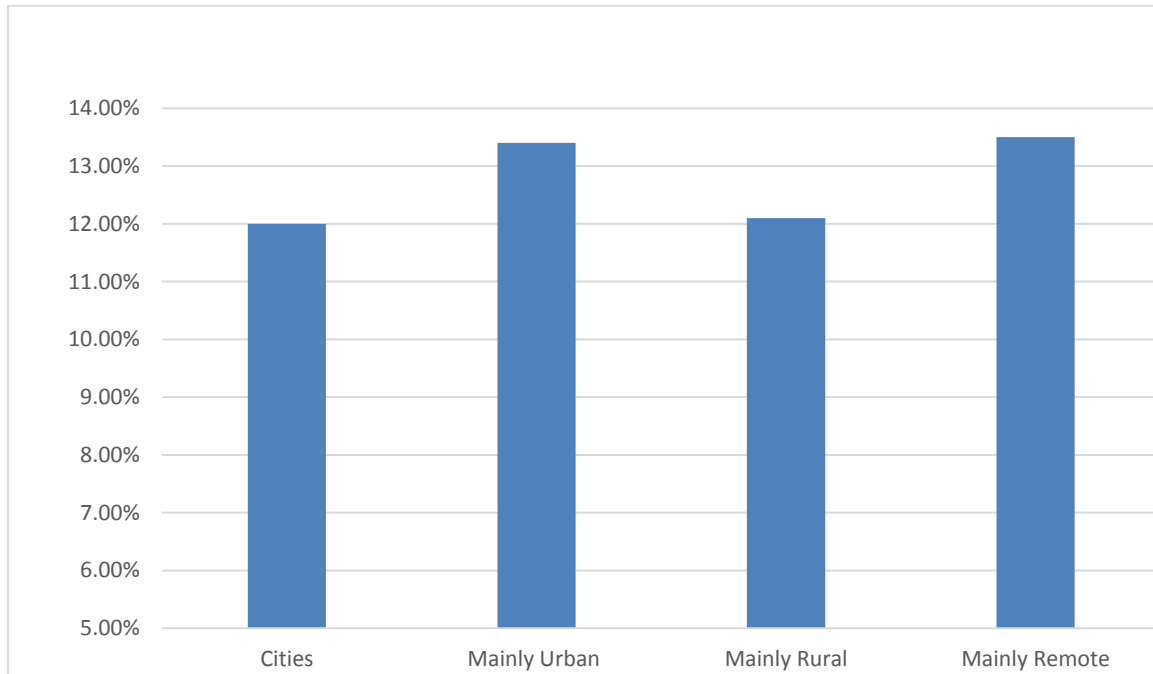
2.3.3 The differences in income increase between authorities of different sizes (in terms of warrant numbers) are small with a range of 1.8% in the income increase. Authorities handling the medium number of warrants enjoyed the largest proportionate gains and authorities with large numbers of warrants the least.

2.3.4 So far as differences between authorities which are predominantly urban or rural are concerned, the differences in income growth are relatively small; the projected growth in income in authorities made up mainly of urban areas is 1.4 percentage points above that in authorities dominated by rural areas. The (very few) remote rural areas also show relatively high growth.

2.3.5 These differences in projected income reflect the distribution of warrants by size in one year (the most recent) and some year to year fluctuation is likely. The

results suggest that the changes in the fee scale proposed are unlikely to benefit one type of authority over another to any significant degree.

Figure 2.5 Fee Income Changes by Authority by Main Area Type



3.1.1 Two of the three options modelled produced more than the required increase in income of £3.3 million after allowing for the impacts of changes to certification discounts and take up. There will, in addition, be an income increase of up to £800,000 from the increases in charges for late applications and completion certificates where no warrant was obtained.

3.1.2 It is suggested that Option 2 should be regarded as the preferred option as it most closely meets the stated aims of BSD, Implementing that option should increase income by at least £4.6 million per annum before certification changes. The increased discounts for certification and anticipated increased take-up have a modelled net cost of just over £1.1 million.

3.1.3 The preferred option involves fee scale increases of 50% for the smallest projects falling to just over 20% for a project with a value of £50,000 and much lower increases for large projects. However, even these increases are substantially mitigated if certificates of design (and to a lesser degree) construction are submitted.

3.1.4 The modelling does not suggest that authorities of any particular scale or type will benefit to a significantly greater or lesser degree than others.

Appendix 1 - Fee Table Preferred Option

Preferred Option							
Value of Work			Increment		Old Fee	New Fee	% Increase
£0	to	£5,000		per £500	£100	£150.00	50.0%
£5,001	to	£5,500	£19	per £500	£115	£169.00	47.0%
£5,501	to	£6,000	£19	per £500	£130	£188.00	44.6%
£6,001	to	£6,500	£19	per £500	£145	£207.00	42.8%
£6,501	to	£7,000	£19	per £500	£160	£226.00	41.3%
£7,001	to	£7,500	£19	per £500	£175	£245.00	40.0%
£7,601	to	£8,000	£19	per £500	£190	£264.00	38.9%
£8,001	to	£8,500	£19	per £500	£205	£283.00	38.0%
£8,501	to	£9,000	£19	per £500	£220	£302.00	37.3%
£9,001	to	£9,500	£19	per £500	£235	£321.00	36.6%
£9,501	to	£10,000	£19	per £500	£250	£340.00	36.0%
£10,001	to	£11,000	£19	per £1,000	£265	£359.00	35.5%
£11,001	to	£12,000	£19	per £1,000	£280	£378.00	35.0%
£12,001	to	£13,000	£19	per £1,000	£295	£397.00	34.6%
£13,001	to	£14,000	£19	per £1,000	£310	£416.00	34.2%
£14,001	to	£15,000	£19	per £1,000	£325	£435.00	33.8%
£15,001	to	£16,000	£19	per £1,000	£340	£454.00	33.5%
£16,001	to	£17,000	£19	per £1,000	£355	£473.00	33.2%
£17,001	to	£18,000	£19	per £1,000	£370	£492.00	33.0%
£18,001	to	£19,000	£19	per £1,000	£385	£511.00	32.7%
£19,001	to	£20,000	£19	per £1,000	£400	£530.00	32.5%
£20,001	to	£30,000	£63	per £10,000	£460	£593.00	28.9%
£30,001	to	£40,000	£63	per £10,000	£520	£656.00	26.2%

£40,001	to	£50,000	£63	per £10,000	£580	£719.00	24.0%
£50,001	to	£60,000	£63	per £10,000	£640	£782.00	22.2%
£60,001	to	£70,000	£63	per £10,000	£700	£845.00	20.7%
£70,001	to	£80,000	£63	per £10,000	£760	£908.00	19.5%
£80,001	to	£90,000	£63	per £10,000	£820	£971.00	18.4%
£90,001	to	£100,000	£65	per £10,000	£880	£1,034.00	17.5%
£100,001	to	£120,000	£103	per £20,000	£980	£1,137.00	16.0%
£120,001	to	£140,000	£103	per £20,000	£1,080	£1,240.00	14.8%
£140,001	to	£160,000	£103	per £20,000	£1,180	£1,343.00	13.8%
£160,001	to	£180,000	£103	per £20,000	£1,280	£1,446.00	13.0%
£180,001	to	£200,000	£103	per £20,000	£1,380	£1,549.00	12.2%
£200,001	to	£220,000	£103	per £20,000	£1,480	£1,652.00	11.6%
£220,001	to	£240,000	£103	per £20,000	£1,580	£1,755.00	11.1%
£240,001	to	£260,000	£103	per £20,000	£1,680	£1,858.00	10.6%
£260,001	to	£280,000	£103	per £20,000	£1,780	£1,961.00	10.2%
£280,001	to	£300,000	£103	per £20,000	£1,880	£2,064.00	9.8%
£300,001	to	£320,000	£103	per £20,000	£1,980	£2,167.00	9.4%
£320,001	to	£340,000	£103	per £20,000	£2,080	£2,270.00	9.1%
£340,001	to	£360,000	£103	per £20,000	£2,180	£2,373.00	8.9%
£360,001	to	£380,000	£103	per £20,000	£2,280	£2,476.00	8.6%
£380,001	to	£400,000	£103	per £20,000	£2,380	£2,579.00	8.4%
£400,001	to	£420,000	£103	per £20,000	£2,480	£2,682.00	8.1%
£420,001	to	£440,000	£103	per £20,000	£2,580	£2,785.00	7.9%
£440,001	to	£460,000	£103	per £20,000	£2,680	£2,888.00	7.8%
£460,001	to	£480,000	£103	per £20,000	£2,780	£2,991.00	7.6%
£480,001	to	£500,000	£103	per £20,000	£2,880	£3,094.00	7.4%
£500,001	to	£550,000	£178	per £50,000	£3,055	£3,272.00	7.1%
£550,001	to	£600,000	£178	per £50,000	£3,230	£3,450.00	6.8%
£600,001	to	£650,000	£178	per £50,000	£3,405	£3,628.00	6.5%

£650,001	to	£700,000	£178	per £50,000	£3,580	£3,806.00	6.3%
£700,001	to	£750,000	£178	per £50,000	£3,755	£3,984.00	6.1%
£750,001	to	£800,000	£178	per £50,000	£3,930	£4,162.00	5.9%
£800,001	to	£850,000	£178	per £50,000	£4,105	£4,340.00	5.7%
£850,001	to	£900,000	£178	per £50,000	£4,280	£4,518.00	5.6%
£900,001	to	£950,000	£178	per £50,000	£4,455	£4,696.00	5.4%
£950,001	to	£1,000,000	£178	per £50,000	£4,630	£4,874.00	5.3%
£1,000,001	to	£1,100,000	£253	per £100,000	£4,880	£5,127.00	5.1%
£1,100,001	to	£1,200,000	£253	per £100,000	£5,130	£5,380.00	4.9%
£1,200,001	to	£1,300,000	£253	per £100,000	£5,380	£5,633.00	4.7%
£1,300,001	to	£1,400,000	£253	per £100,000	£5,630	£5,886.00	4.5%
£1,400,001	to	£1,500,000	£253	per £100,000	£5,880	£6,139.00	4.4%
£1,500,001	to	£1,600,000	£253	per £100,000	£6,130	£6,392.00	4.3%
£1,600,001	to	£1,700,000	£253	per £100,000	£6,380	£6,645.00	4.2%
£1,700,001	to	£1,800,000	£253	per £100,000	£6,630	£6,898.00	4.0%
£1,800,001	to	£1,900,000	£253	per £100,000	£6,880	£7,151.00	3.9%
£1,900,001	to	£2,000,000	£253	per £100,000	£7,130	£7,404.00	3.8%
£2,000,001	to	£2,100,000	£253	per £100,000	£7,380	£7,657.00	3.8%
£2,100,001	to	£2,200,000	£253	per £100,000	£7,630	£7,910.00	3.7%
£2,200,001	to	£2,300,000	£253	per £100,000	£7,880	£8,163.00	3.6%
£2,300,001	to	£2,400,000	£253	per £100,000	£8,130	£8,416.00	3.5%
£2,400,001	to	£2,500,000	£253	per £100,000	£8,380	£8,669.00	3.4%
£2,500,001	to	£2,600,000	£253	per £100,000	£8,630	£8,922.00	3.4%
£2,600,001	to	£2,700,000	£253	per £100,000	£8,880	£9,175.00	3.3%
£2,700,001	to	£2,800,000	£253	per £100,000	£9,130	£9,428.00	3.3%
£2,800,001	to	£2,900,000	£253	per £100,000	£9,380	£9,681.00	3.2%
£2,900,001	to	£3,000,000	£253	per £100,000	£9,630	£9,934.00	3.2%
£3,000,001 +			£253	per £100,000	£17,630	£17,983	2.0%

Appendix 2 - Local Authorities by Classification

Urban/Rural			
Cities	Mainly Urban	Mainly Rural	Mainly Remote
Aberdeen, Dundee, Edinburgh, Glasgow	Angus, Clackmannanshire, East Ayrshire, East Dunbartonshire, East Lothian, East Renfrewshire, Falkirk, Fife, Inverclyde, Midlothian, North Ayrshire, North Lanarkshire, Renfrewshire, South Ayrshire, South Lanarkshire, Stirling, West Dunbartonshire, West Lothian	Aberdeenshire, Dumfries and Galloway, Highland, Moray, Perth and Kinross, Scottish Borders	Argyll and Bute, Comhairle nan Eilean Siar, Orkney, Shetland

Size (by number of Warrants per annum)		
Large	Medium	Small
Aberdeenshire, Edinburgh, Fife, Glasgow, Highland, South Lanarkshire	Aberdeen, Dumfries and Galloway, East Renfrewshire, North Ayrshire, North Lanarkshire, Perth and Kinross, Renfrewshire, Scottish Borders, South Ayrshire, West Lothian	Angus, Argyll and Bute, Dundee, East Ayrshire, East Dunbartonshire, East Lothian, Falkirk, Inverclyde, Midlothian, Moray, Orkney, Shetland, Stirling