The pupil premium: assessing the options

Empirical Analysis of Policy Options

Haroon Chowdry, March 2nd 2010.
Outline

• Issues around designing a pupil premium
• Underlying assumptions

• Modelling specific pupil premium options
  – Which schools are winners and losers?
  – How redistributive are these reforms?

• Moving to a single national funding formula
  – What kinds of school would win or lose?
  – How might the risk of large losses be mitigated?

• What have we learnt?
Key questions for designing a pupil premium

• To analyse policy options, need to specify first what those options might be

• Four main questions to consider
  1) How should “disadvantaged” pupils be classified?
  2) How much should the pupil premium be?
  3) What would the net cost of the policy be?
  4) Would it replace any or all of the current system?
Key questions for designing a pupil premium

1) How should “disadvantaged” pupils be classified?
   – Low income? Low attainment? Other barriers to learning?
   – We use FSM eligibility, indicators of neighbourhood deprivation (MOSAIC) and low prior attainment at age 11
   – Also allow for language and learning difficulties (EAL/non-statemented SEN)

2) How much should the pupil premium be?

3) What would the net cost of the policy be?

4) Would it replace any or all of the current system?
Key questions for designing a pupil premium

1) How should “disadvantaged” pupils be classified?

2) How large should the pupil premium be?
   – Evidence suggests very large in order to close achievement gap
   – Alternative: pupil premium determined by 3)
   – Take a given total budget and number of disadvantaged pupils, then calculate feasible premium

3) What would the net cost of the policy be?

4) Would it replace any or all of the current system?
Key questions for designing a pupil premium

1) How should “disadvantaged” pupils be classified?
2) How much should the pupil premium be?
3) What would the net cost of the policy be?
   - £2.5bn (proposed by Lib Dems)
   - Revenue-neutral (in light of public finances)
   - Or somewhere in between (e.g. £1bn)
4) Would it replace any or all of the current system?
Key questions for designing a pupil premium

1) How should “disadvantaged” pupils be classified?
2) How much should the pupil premium be?
3) What would the net cost of the policy be?
4) Would it replace any or all of the current system?
   1. Supplement all existing funding (proposed by Lib Dems)
   2. Replace specific grants
   3. Replace specific grants and local authority formula funding (‘single national funding formula’)
Underlying assumptions

- Analyse the impact on school budgets only
  - Do not take into account possible responses to a pupil premium by schools or parents
  - Number of pupils (and their distribution across schools) fixed at 2008–09 level

- Some streams of funding are kept fixed at 2008–09 levels
  - Area Cost Adjustment
  - LSC funding for sixth-form pupils
  - Funding for pupils with statements of SEN
  - Discretionary budget adjustments
Modelling specific pupil premium options

Most basic example (Option 1a in report)

- £2.5bn pupil premium on top of current system
  - No schools lose out
- Additional funding weighted towards FSM only
- 1.04 million pupils eligible for FSM in England in 2008–09
  ⇒ All schools receive extra £2,400 extra per FSM pupil

<table>
<thead>
<tr>
<th>Measure of disadvantage</th>
<th>Option 1a</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSM</td>
<td></td>
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<tr>
<td>FSM premium</td>
<td>£2,400</td>
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<tr>
<td>Net cost</td>
<td>£2.5bn</td>
</tr>
</tbody>
</table>
Percentage change in funding levels: Option 1a

- Primary
- Secondary

Cumulative percentage of schools vs. percentage change.
Percentage change in funding levels: Option 1a

Cumulative percentage of schools

Percentage change

Primary

Secondary

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Primary funding by deprivation level: Option 1a

Funding per pupil

Baseline
Option 1a
% change (RHS)

Decile group

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Secondary funding by deprivation level: Option 1a

- Baseline
- Option 1a
- % change (RHS)
Modelling specific pupil premium options

Approximation of Liberal Democrat proposal (Option 1b)

- £2.5bn pupil premium on top of current system
- Money is allocated for FSM pupils
  - Primary pupils attract twice the FSM premium as secondary pupils
- Smaller payments for pupils with EAL or non-statemented SEN

<table>
<thead>
<tr>
<th>Measure of disadvantage</th>
<th>Option 1b</th>
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<tbody>
<tr>
<td>FSM premium (primary/secondary)</td>
<td>£2,740/£1,370</td>
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<tr>
<td>EAL premium</td>
<td>£140</td>
</tr>
<tr>
<td>SEN premium</td>
<td>£140</td>
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<tr>
<td>Net cost</td>
<td>£2.5bn</td>
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</tbody>
</table>
Percentage change in funding levels: Option 1b

Cumulative percentage of schools vs. Percentage change, with curves for Primary and Secondary schools.
Primary funding by deprivation level: Option 1b

Funding per pupil

Decile group

Baseline
Option 1b
% change (RHS)
Secondary funding by deprivation level: Option 1b

Funding per pupil

- Baseline
- Option 1b
- % change (RHS)

Decile group

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Funding per pupil:
- £0
- £1,000
- £2,000
- £3,000
- £4,000
- £5,000
- £6,000
- £7,000

% change:
- 0%
- 5%
- 10%
- 15%
- 20%
- 25%
- 30%
- 35%
- 40%
- 45%
- 50%
Modelling specific pupil premium options

Very simple version of single national funding formula (3a)
- Scrap specific grants and LA formulae funding (totalling £31bn)
- Provide a basic cash amount for all pupils, varying by Key Stage
- Add an FSM pupil premium on top
  - Give a 33% higher FSM premium to secondary schools

<table>
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<th>Measure of disadvantage</th>
<th>Option 3a</th>
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<td>FSM premium (primary/secondary)</td>
<td>£3,690/£4,920</td>
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<td>EAL premium</td>
<td>£250</td>
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<tr>
<td>SEN premium</td>
<td>£250</td>
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<tr>
<td>Net cost</td>
<td>£0bn</td>
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</table>
Percentage change in funding levels: Option 3a

- Cumulative percentage of schools
- Percentage change

Primary vs. Secondary

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Primary funding by deprivation level: Option 3a

Funding per pupil

Baseline  Option 3a  % change (RHS)

<table>
<thead>
<tr>
<th>Decile group</th>
<th>Baseline</th>
<th>Option 3a</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>10</td>
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Secondary funding by deprivation level: Option 3a

The diagram shows the funding per pupil for different decile groups under Baseline (red) and Option 3a (orange). The x-axis represents the decile group (1 to 10), and the y-axis represents the funding per pupil in pounds (£). The chart also includes a line graph on the right-hand side showing the percentage change (% change (RHS)) from the Baseline to Option 3a.

- Baseline funding ranges from £0 to £7,000 per pupil, with a significant increase in the first decile group (10% increase) and a decrease in subsequent decile groups.
- Option 3a funding follows a similar pattern, with a notable increase in the first decile group (15% increase) and a decrease in subsequent groups.
- The percentage change (RHS) indicates a decrease in funding from the Baseline to Option 3a, with the highest decrease in the first decile group and a gradual decrease in subsequent decile groups.
Modelling specific pupil premium options

Approximate version of Policy Exchange proposal (3b)

- Use MOSAIC geo-demographic classifications instead of FSM
  - Provide extra money to schools for pupils in the 3 MOSAIC groups associated with lowest GCSE attainment
- Additional funding made available by cutting other areas of education spending outside Schools Budget

<table>
<thead>
<tr>
<th>Measure of disadvantage</th>
<th>Option 3b</th>
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<tr>
<td>MOSAIC premium (groups 1–3)</td>
<td>£4,660/£3,100/£770</td>
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<tr>
<td>EAL premium</td>
<td>£230</td>
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<tr>
<td>SEN premium</td>
<td>£230</td>
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<tr>
<td>Net cost</td>
<td>£1bn</td>
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</table>
Percentage change in funding levels: Option 3b

Cumulative percentage of schools for different percentage changes in funding levels, differentiated for primary and secondary schools.
Primary funding by deprivation level: Option 3b

- Baseline
- Option 3b
- % change (RHS)

Funding per pupil vs Decile group

Bar chart showing funding per pupil across different decile groups, with a trend line indicating the percentage change for Option 3b compared to the baseline.
Secondary funding by deprivation level: Option 3b

Funding per pupil

Decile group

- £2,000
- £1,000
£0
£1,000
£2,000
£3,000
£4,000
£5,000
£6,000
£7,000

Baseline
Option 3b
% change (RHS)
Moving to a single national funding formula

• Some schools would face a significant change in their resources
  – What characteristics do these schools have?
  – Consider simplest option (3a) and examine gains/losses further

• Large secondary schools lose more; less of a pattern for primary

• Geographic variation:
  – Rural primary schools gain more than urban; less of a pattern for secondary
  – Primary schools in South West and South East gain most, in Yorkshire they lose on average
  – Only secondary schools in London and NE gain on average; Yorkshire and East Midlands lose the most
  – Gains and losses are concentrated in particular local authorities
Small impact on year-to-year volatility
## Transitional mechanisms

<table>
<thead>
<tr>
<th>Floor on losses in real-terms per-pupil spending</th>
<th>Length of transition (years)</th>
<th>Cumulative total cost of transition (£m, 2010 prices)</th>
<th>Without ceiling on increases in funding</th>
<th>With ceiling of 15% per year</th>
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What have we learnt?

• Many possible options and definitions
• Pupil premium can significantly increase funding in most deprived schools
  – Easy if just provided on top of current system
  – But difficult to sustain given public finances
• Replacing parts of current system creates winners and losers
  – Trade-off between simplicity and flexibility
  – Compensating losers may require additional resources
• Is price of simplicity prohibitive?
  – Single national funding formula could produce fewer significant losers than pure pupil premium from specific grants
  – Potential transitional mechanisms are relatively cheap...
  – ...but even 5% losses would be a painful pill to swallow