

# Solutions for an Improved Early Years System:

A discussion document

November 2022



With analytical support from

# Executive Summary

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The early years (before age 5) set the foundations for children's longer-term outcomes and is when investments in education have the highest returns for society.

We can redesign our Early Childhood Education and Care (ECEC) system to more effectively support parents and carers into work and to advance children's learning and development.

The UK (and England in particular) significantly lag other countries in their ECEC spend (both per capita and as a % of GDP) – with £3.95bn from the Department for Education (DfE, under 5% of their total budget) and £1.9bn through benefits and tax credits.

**This Early Years coalition has come together to present a variety of solutions that would be improvements on the current system of funded childcare.**

This Early Years coalition has come together to present a variety of solutions that would be improvements on the current system of funded childcare. The first two options represent minor increases in spend based on current funding; the third and fourth factor in the breakeven costs of operating calculated by the Department of Education.

This is not an attempt to design a perfect system on a blank sheet of paper, but to improve what already exists.

We seek to inform future discussions about the funding of ECEC by

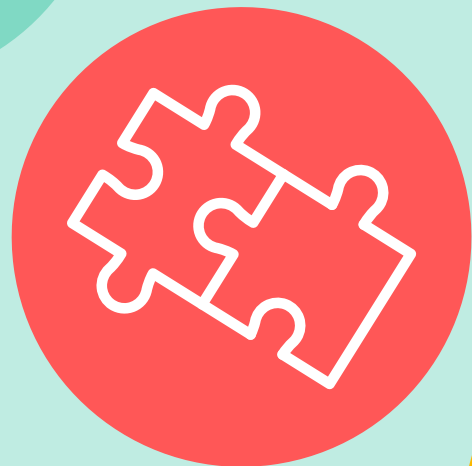
- transparently calculating real costs
- suggesting ways access and entitlements can be simplified for parents
- refocusing current spending on the priorities of achieving a quality of education for all children, particularly those who need it most.

**We present our analysis here as a way to ensure those trade-offs are understood and that choices are well-informed.**

Unless total spending is increased by a magnitude of tens of billions, there will have to be some choices made by policy makers shaping the ECEC system. We present our analysis here as a way to ensure those trade-offs are understood and that choices are well-informed. This does not negate the need for a longer-term national strategy that establishes the vision beyond the next couple of years.

- 1. Universal access from 2yrs to support school readiness (£4.08bn):** Redirect funding from work incentives for middle/high income families to support access to education earlier for all.
- 2. Boost prospects of disadvantaged children (£4.54bn):** Target funding towards those most in need to tackle disadvantage gaps and support social mobility.
- 3. Ensuring high quality places are available for all (£6.08bn):** Bring funding in line with DfE breakeven costings to increase affordability for parents.
- 4. Support parents to grow the workforce (£23.19bn):** Offer more hours over longer period to enable parents to work or study.

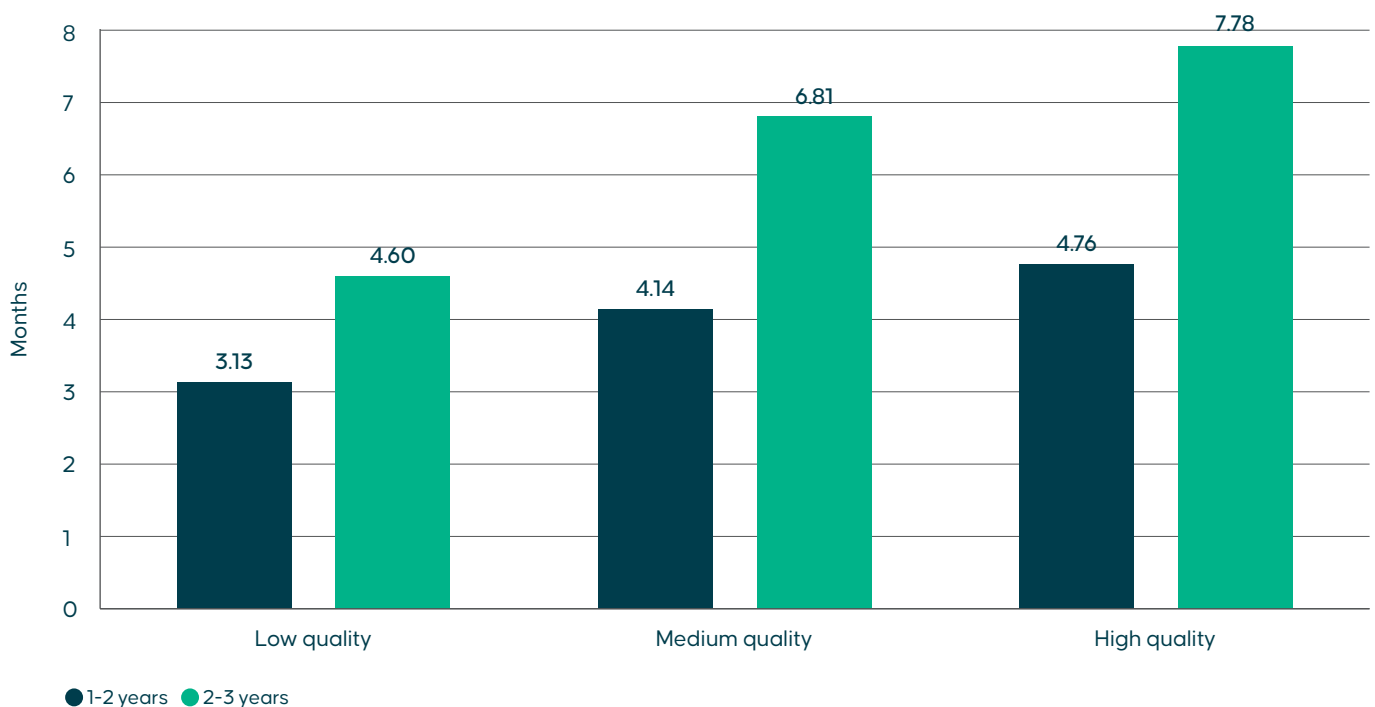
**Early childhood  
Education and Care  
(ECEC) can have  
huge benefits  
for children,  
families and the  
economy.**



# High-quality Early Childhood Education and Care (ECEC) supports child development, particularly for disadvantaged children

- Educational inequality is a big problem and **starts very early**: 40% of the achievement gap at 16 is already visible **before children reach age 5**
- **But ECEC can have a lasting positive impact**, attending increases the probability of obtaining five or more good GCSE passes by 8%
- **This positive effect is greatest for disadvantaged children** but all children benefit
- **High-quality settings are most effective**: they increase the likelihood of achieving five or more good GCSE passes by just under 20%, and if attend for 2–3 years are almost **8 months ahead of children who do not attend nursery**
- Babies and toddlers have been hugely affected by the pandemic; **investing in support now is urgent to prevent additional support costs later.**

## Developmental advantage (in months) for duration and quality of pre-school on literacy at school entry (home as comparison)



## Accessible and affordable ECEC can drive economic growth

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- **50% of non-working mothers would prefer to work if they could arrange suitable childcare.**
- **Helping parents get back into work means they will be paid more.** While the gender wage gap is stable until the arrival of the first child, it gradually rises over the next 12 years, up to 33 per cent.
- **Paid work remains one of the best routes out of poverty for families with children, 73%** who gain full-time employment move out of relative poverty.
- **Increasing ECEC options and decreasing prices will help women back into work.** Studies from the US generally find that a 10 percent reduction in childcare costs increases maternal employment between 0.25% and 2.5%.

**50%**

of non-working mothers would prefer to work if they could arrange suitable childcare

**73%**

who gain full-time employment move out of relative poverty



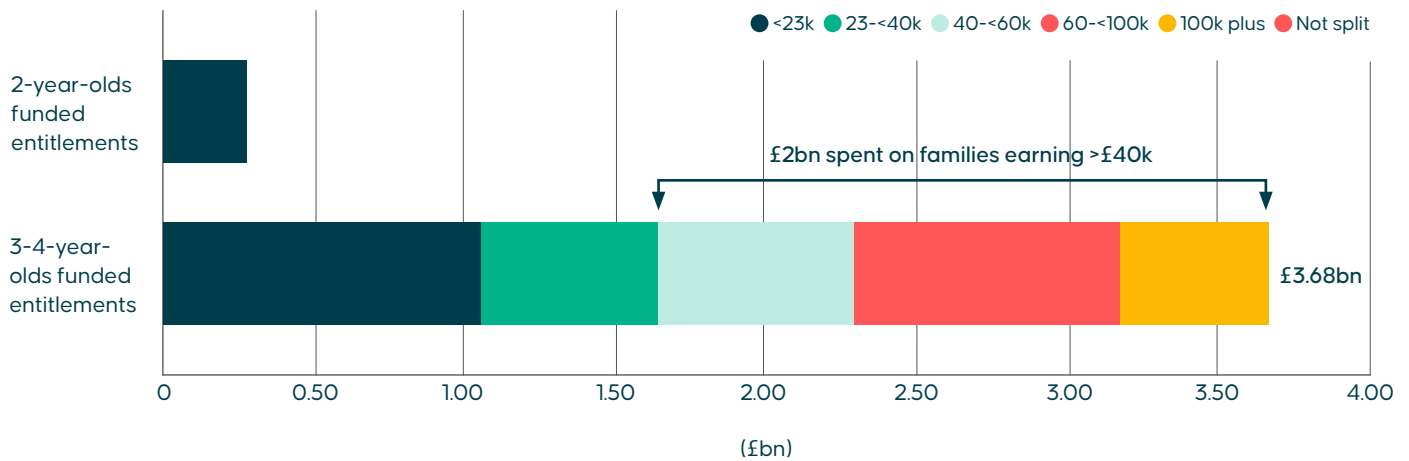
**But ECEC isn't  
reaching its  
tremendous  
potential.**

**Current policy  
isn't reaching its  
intended aims.**

# The DfE spends £3.93bn per year on ECEC\*

## DfE funding is focused on 3-4 year olds from middle to high income families

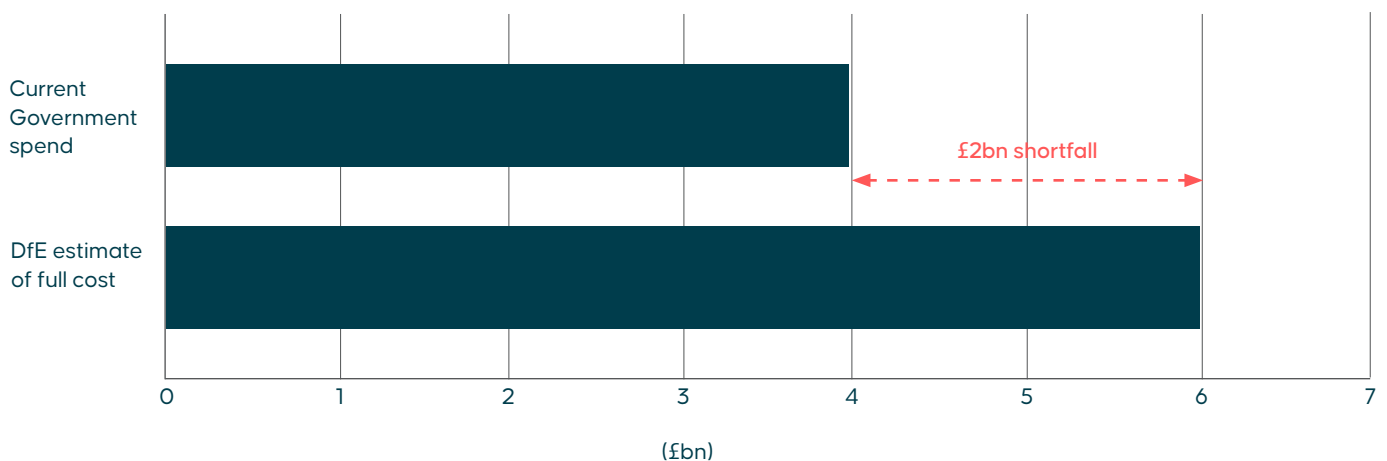
Government spend on early education and childcare (£bn) by family gross earnings level



\*Excluding additional spend by other government departments on Tax Free Childcare and childcare support via the benefit system

## The DfE's funding is insufficient, leaving providers to make up the shortfall from families directly

Current spend v real cost of early education & childcare (£bn)



### The result

- Providers disincentivised to offer the entitlement
- Providers disincentivised to operate in more disadvantaged areas where families can't afford to top up
- Families who can't top-up are locked out of provision



### Current policy aims are:

- To support children's development and ensure they are ready for school
- To close the gap between educational achievement of disadvantaged children and their peers
- To help parents back into employment to drive economic growth

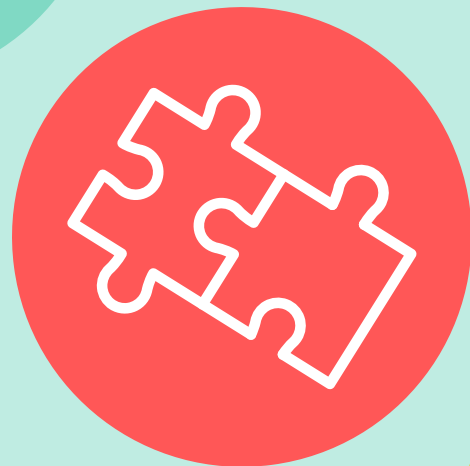
### But these aren't being achieved:

- Teachers report that around half of children arrive in Reception 'not-ready' to thrive
- There is an increasing educational gap between the most disadvantaged 5-year-olds and their peers (to 32% in 2019)
- Families find ECEC difficult to access, 96% of families said it was too expensive.

### And the reasons are clear:

- High quality provision needs **qualified and experienced staff**, but funding pressures do not allow for this. Wages have stagnated with 44% of workers claiming benefits. There is a growing recruitment and retention crisis: 94% of Local Authorities report difficulties recruiting qualified staff.
- **The impact of the pandemic** on babies and toddlers is immense and needs extra investment urgently
- Children's development is supported by **high quality nurseries**, but there are fewer of these in more disadvantaged areas: only 16% of nurseries in disadvantaged areas are rated Outstanding by Ofsted compared to 23% in affluent areas
- **The level of support for closing the gap is insufficient**
  - 10% of 3/4yos get Early Years Pupil Premium, compared to 25% of primary age children
- EYPP is paid at a rate of £342 per child compared, to £1,385 per child in primary
- Less than c.6% of the EY funding formula is linked to disadvantage, compared to 17% in schools.
- While the overall number of places is increasing, the number of **places in the most disadvantaged areas is going down**
- Due to systemic underfunding of provision, private and voluntary providers deliver **half as many places in the most deprived compared to the least**
- Schools are the provider of last resort when the market fails, and 80% report having to subsidise their nurseries from elsewhere in the budget.

**A new set of  
options for ECEC.  
Incremental steps  
towards an Early  
Years system that  
delivers its aims.**



## A more coherent set of policies are possible

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We have been working together to consider how policy and funding can best be used to support children and families to thrive. Our work has been led by the following aims:

- Bring coherence to incrementally developed policy and funding to better meet its stated goals
- Ensure options are rigorously informed by evidence
- Prioritise support for most disadvantaged families who most benefit from ECEC
- Encourage a long-term solution, while setting out viable shorter-term options for change

- Work within the context of public funding constraints

We propose a range of options for an improved and more coherent early years system that better meets its goals. These options have been designed so they can be implemented incrementally as a series of steps towards a comprehensive system that can deliver for children, families and the economy. The options below are set out in general terms, and do not go into detailed discussion of what would be needed for successful implementation.

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**It is time to redress this imbalance and place funds where they are most effective and most likely to deliver social justice. The transformative potential of subsidised childcare is greatest at the lower end of the income scale where it can increase take-home pay more substantially in relative terms, help reduce household worklessness and support parents who want to work, and give children with less support in life a better chance to thrive.”**

A Bright Start - Centre for Social Justice and Save the Children, 2018

## Policy based on evidence and principles

Stated policy aims	Principles for achieving these	Policy implications
<p>To <b>support children's development</b> and ensure they are ready for school</p>	<p><b>Increase quality</b> of ECEC to level that consistently improves outcomes by:</p> <ul style="list-style-type: none"> <li>• Prioritising 15 hours over longer period rather than increased hours for shorter period</li> <li>• Improving recruitment, retention and qualification level of workforce</li> </ul>	<p>Offer universal 15 hours ECEC to all 2-4yos Attach conditions to additional funding</p>
<p>To <b>close the gap</b> between educational achievement of disadvantaged children and their peers</p>	<p><b>Ensure access and availability</b> of ECEC places for <b>all children</b> by:</p> <ul style="list-style-type: none"> <li>• Ensuring viable funding rates so that providers can survive solely offering government funded entitlements</li> <li>• Support children in greatest need requires additional resources</li> </ul>	<p>Ensure entitlements are fully-funded to cover real costs Increase disadvantage component of funding</p>
<p>To <b>help parents back into employment</b> to drive economic growth</p>	<p><b>Support working parents</b> by making it easier to <b>take-up places</b> by:</p> <ul style="list-style-type: none"> <li>• <b>Simplifying and streamlining</b> the system, with a core universal offer</li> <li>• <b>Taper funding</b> so that lower and middle income families get more support and higher income families who can self-fund get less</li> </ul>	<p>Prioritise supply side funding of entitlements Target funds to support lower/ middle income families</p>

# Building blocks to a better system

## 1. Universal access from 2yrs to support school readiness

Redirects funding from work incentives for middle/high income families to support access to education earlier

### Pros

- ✓ Helps ensure all children are ready to thrive at school & education recovery
- ✓ 35% more children benefit
- ✓ Working parents get same no of funded hours as current 30 hours system but earlier and spread over 2 years
- ✓ No barriers to access: simpler admin and easier for parents to understand offer

- ✓ Reduced stigma supports take-up by disadvantaged families & better through learning alongside more advantaged peers.

### Cons

- ✗ Doesn't address workforce/ viability/ sufficiency esp in disadvantaged areas or high fees to parents

## 2. Boost prospects of disadvantaged children

Target funding towards higher quality provision those most in need to tackle disadvantage gaps and support social mobility, through additional 33% weighting for children of families earning <£23k.

### Pros

- ✓ Incentivises providers to work in disadvantaged areas and thereby ensures access to high quality places in "cold spots", where top up fees and cross-subsidy are not an option to ensure provider viability.

- ✓ Improves outcomes for disadvantaged children
- ✓ Simpler for parents since only providers see impact of differential

### Cons

- ✗ Doesn't address wider sector issues re viability, quality, affordability

### 3. Ensuring high quality places are available for all

Bring funding in line with DfE breakeven costings to increase affordability for parents and quality of provision (including enhanced EYPP rate of £1000 per child).

#### Pros

- ✓ Allows settings to be viable without needing to cross-subsidise, ensuring enough places available in all areas
- ✓ Improves quality by allowing for increased workforce pay
- ✓ Providers can be asked to cap fees in return for viable funding rates, bringing down cost for parents

#### Cons

- ✗ Some degree of funding differentiation and regulation needed to ensure funding not increasing excessively profits in wealthy areas

### 4. Support parents to grow the workforce

Offer more high quality hours over longer period to enable parents to work or study. Support for hours beyond universal 15 could be based means-tested to reduce cost to government, and funded by DWP as a replacement for support via the benefit system and TFC.

#### Pros

- ✓ Addresses cost of living and supports the economy
- ✓ Targets funding based on family earnings and need to make work pay
- ✓ Reduced spend by DWP/HMRC

#### Cons

- ✗ Significant deadweight funding unless means-tested differentiated entitlements

# Modelling the costs with incremental increases in funding

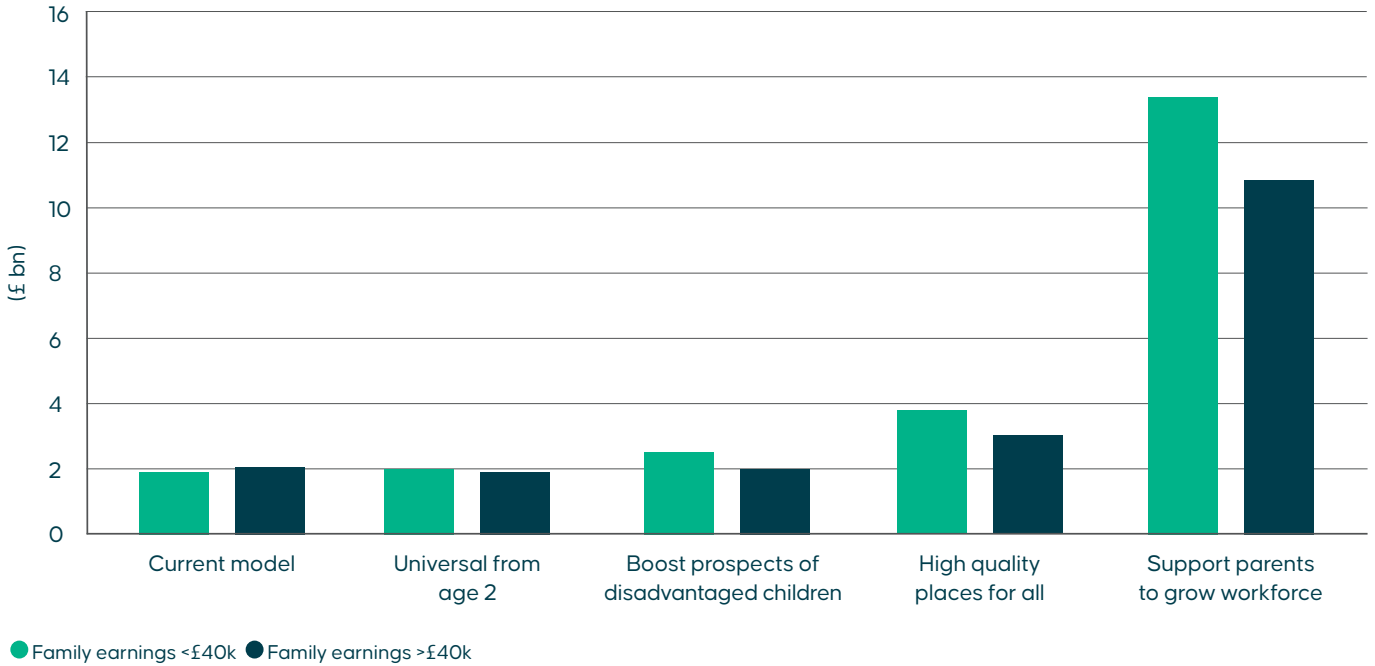
	0. Current model	1. Universal education from two	2. Boost prospects of disadvantaged children	3. Ensuring high quality places are available for all	4. Support parents to grow the workforce
<b>Change from previous</b>		Universal 15 hours for 2yos replaces 15 additional hours for working parents at 3	Adds disadvantage premium of 0.33 to funding rate for children in households earning < £23k	Raises hourly rate for all funded entitlements to reflect DfE estimate of actual cost of provision	Extends entitlements to 30 hours for 48 weeks for all children from age 1
<b>No of children benefiting:</b> Family income <£40 Family income >£40k	565k 466k	706k 689k	706k 689k	706k 689k	918k 908k
<b>No of hours per child:</b> Aged 1 2s (low income/SEND) 2s (other) 3-4 not working 3-4s working and earnings <£100k 3-4s earnings >£100k	0 15 for 38 weeks 0 15 for 38 weeks 30 for 38 weeks 0	0 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks	0 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks	0 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks 15 for 38 weeks	30 for 48 weeks 30 for 48 weeks 30 for 48 weeks 30 for 48 weeks 30 for 48 weeks 30 for 48 weeks
<b>Government spend by gross family income:</b> Families earning <£40k Families earning >£40k	£1.9bn £2.0bn	£2.1bn £2.0bn	£2.5bn £2.0bn	£3.8bn £3.1bn	£13bn £10bn
<b>Cost of option and cumulative cost</b>	<b>Costs: £3.95bn*</b>	<b>Cost £4.08bn</b>	<b>Add £0.46bn</b> Cumulative cost of options 1+2: <b>£4.54bn</b>	<b>Add £2.36bn</b> Cumulative cost of options 1+2+3: <b>£6.90bn</b>	<b>Add £16.30bn</b> Cumulative cost of options 1-4: <b>£23.20bn</b>

Sources for budget and child numbers: Frontier Economics estimates using FRS household survey data and ONS population statistics.

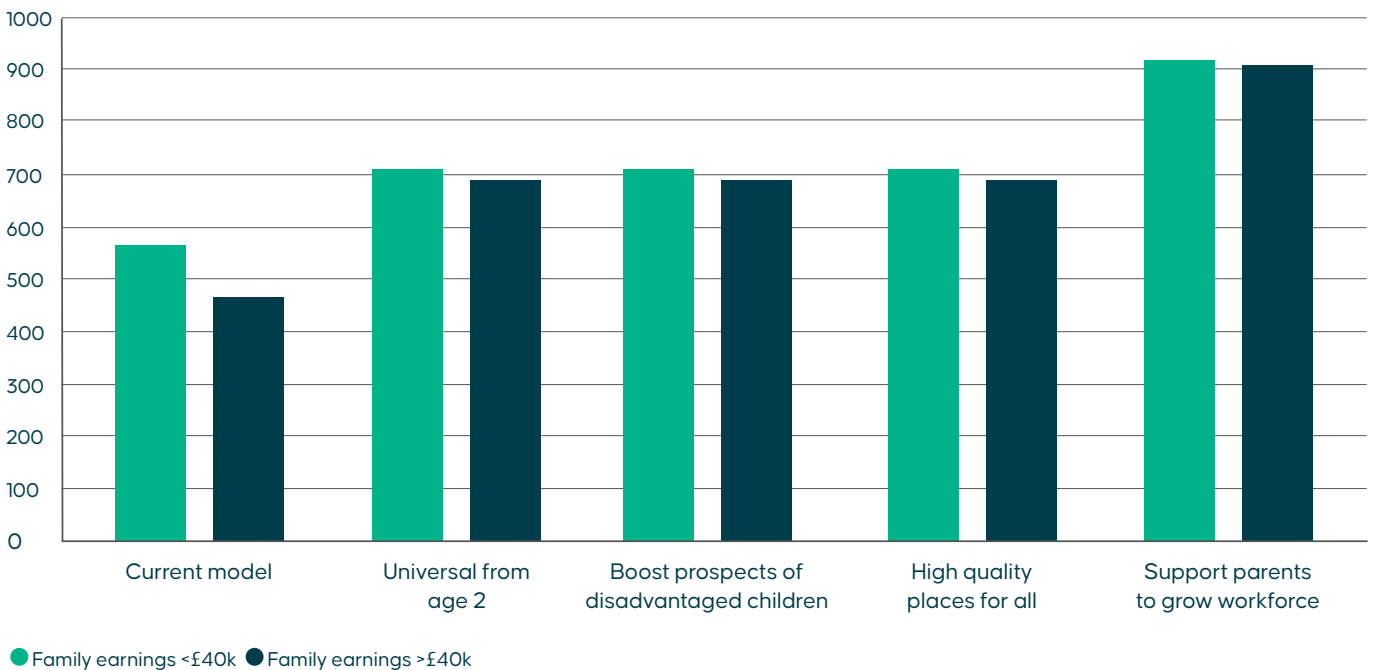
\*Spend through the tax and benefit system is excluded as this covers all of the UK, not just England, and also includes school-age children. However, some options would reduce the spend needed through these routes.

# Our models shift spend towards lower-earning families

## Government spend for lower/higher earning families under current proposed models



## Number of children benefiting from each model by lower/higher family earnings





# Step 1: Universal access from 2yrs to support school readiness

## Government funded entitlements:

**Under 2s:** none

**Age 2:** 15 hours for all

**Age 3-4:** 15 hours for all

Working parents pay for additional hours

Cost: £4.08bn

(£0.13bn more than current)

**Children benefiting: 1.39m**

(compared to current system: 1.03m, +35%)

### Pros

- ✓ In line with **research**, children spend two years in nursery supporting 'school readiness' and boosting educational attainment
- ✓ Working parents substitute additional 15 hours at age 3 for 15 hours at age 2 – **helping families** by spreading support over more years and covering higher cost of 2yo fees
- ✓ **35% increase in number of children** benefiting

### ✓ **Simpler admin**

- ✓ **Reduced stigma** would result in higher take up by disadvantaged families
- ✓ Minimal increase from current spend

### Cons

- ✗ Doesn't address workforce/ viability/ sufficiency esp in disadvantaged areas or high fees to parents
- ✗ Need 1 year overlap to avoid any family losing out

## Step 2: Boost prospects of disadvantaged children

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### Government funded entitlements:

**Under 2s:** none

**Age 2:** 15 hours for all

**Age 3-4:** 15 hours for all

Working parents pay for additional hours

**Step 1 PLUS Additional disadvantage funding for children from families earning under £23k**

Cost £4.08bn (step 1) + £ 0.46bn (step 2)

**Total : £4.54bn**

#### Pros

- ✓ **Targets** differential hourly rate for lower income children to improve outcomes
- ✓ **Improves access** by concentrating funds in areas of highest disadvantage where cross-subsidy and top-up fees aren't viable options

- ✗ Only addresses viability, quality and affordability in the most disadvantaged areas, not across the board

## Step 3: Ensuring high quality places are available for all

### Government funded entitlements:

**Under 2s:** none

**Age 2:** 15 hours for all

**Age 3-4:** 15 hours for all

Working parents pay for additional hours

**Funding rate includes additional disadvantage component AND full cost rates for all government funded places**

Cost: £4.08bn (step 1) + £ 0.46bn (step 2) + £2.36bn (step 3)

**Total: £6.9bn**

#### Pros

- ✓ Ensures all settings **viable without needing to cross-subsidise** which keeps down parent-paid fees and ensures access to places in all areas. In return, government could require a **cap on fees** to ensure cost is reduced for parents
- ✓ Creates **potential to improve workforce** pay (possibly on a national pay scale) linked to improved staff qualifications to improve quality

- ✓ Further **benefits disadvantaged children** by raising EYPP to £1000
- ✓ Allows for a more differentiated funding system linked to disadvantage and need

#### Cons

- ✗ Requires regulation e.g. greater transparency about provider profit levels and/or cap on profit levels to ensure best use of public money

## Step 4: Support parents to grow the workforce

Here we propose a set of options for additional hours. The aim would primarily be to support working parents, but we have costed them as universal offers to recognise that there are other good reasons why parents might use them: to study, volunteer or gain work experience; to apply for and find work; as respite to those with caring responsibilities or to provide stable environments for children facing challenging domestic situations.

Although costed as universal, there would be good arguments for means testing eligibility for these additional hours. Costs would then reduce based on eligibility and take-up rates

### Government funded entitlements:

**Under 2s:** 15/30/50 hours from 1

**Age 2:** 15/30/50 hours

**Age 3-4:** 15/30/50 hours

Working parents receive some funded and/or subsidised hours and pay for balance

Cost: £6.9bn (steps 1-3) plus:

+ £2.66bn (15 hours for 1yos)

**(Total £9.57bn)**

+ £8.93bn (15 more hours for 1-4yos)

**(Total £18.50bn)**

+ £4.70bn (48 weeks instead of 38 for 30 hours for 1-4yos)

**(Total £23.20bn)**

+ £15.05bn (50 hours instead of 30 for 48 weeks for 1-4yos)

**(Total £38.25bn)**

#### Pros

- ✓ Addresses **cost of living** and supports the economy
- ✓ **If means-tested, could target funding** based on family earnings and the need to make work pay

#### Cons

- ✗ Some children negatively impacted by 35+ hours
- ✗ Significant deadweight funding unless means tested differentiated entitlements

# The case for means testing: a better system for linking support with income

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## Making best use of public funds

- The current system involves significant “dead weight” funding – subsidy for parents who would pay for the hours anyway. It also spends more on children in higher income households than on lower-income ones.
- For higher earning parents, the additional hours of childcare can reasonably be offset against the higher earning from additional hours worked
- In the context of pressures on public expenditure, it makes sense to consider differentiated levels of support linked to family earnings
- The current system is confusing and inefficient

## Income-related eligibility in the current system

Means testing is already part of our system but in a fragmented and inconsistent way with additional hidden means testing operating through the top up fee process which provides more access and choice to more affluent families.

The current system includes multiple income-related provisions which are applied for via different routes:

- The 2yo entitlement (low income/ disability/in care)
- EYPP funding (linked to income/ benefit (low income/in care)
- Childcare costs reimbursed via benefit system (Tax credits/Universal credit)
- 30 hours (parental earnings)
- Tax free childcare (parental earnings)
- Support for students (3 systems)

## A proposal for a cohesive, comprehensive Early Years system for parents

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- The education proportion of the entitlement (universal 15 hours from age 2) should be free at point of delivery
- Additional hours to support parental working should be means-tested under a single system and on a sliding scale related to income, determining what parents receive either as
  - Varying numbers of fully-funded hours OR
  - Varying rates of subsidy for additional hours
- A single portal for parents and providers to determine what they are entitled to, with a simple mechanism to redeem the entitlement at their provider of choice
- All streams of government funding paid to providers via local authorities so that parents are not required to pay upfront and claim in arrears
- Requirements for transparent billing with clear rules, enforced by local authorities, about how providers charge e.g. any cap on the balance of fees, not being allowed to make fully funded hours conditional on paid ones.

**Additional hours to support parental working should be means-tested under a single system and on a sliding scale related to income.**

## If there's no more money, are there other options?

### Stick with the underfunded status quo

- Parents still face high costs
- Places in disadvantaged areas will continue to decrease
- Providers struggling to remain viable, and unable to invest in improving quality
- Children's outcomes will not improve

### Universal 15 hours only for 3-4 year olds at DfE costed rates – scrap 30 hours and 2yo funding

- Would improve quality of ECEC and access to places
- If conditions attached to prevent top-up fees, would reduce need for cross-subsidy
- Loss of 2yo offer could increase disadvantage gap
- Parents benefiting from 30 hours would lose out – unlikely to be palatable

### Move to underfunded universal 15 hours from 2






- Benefits 35% more children and parents
- Spreads cost for parents
- Problems will persist of high cost, lack of places and loss of quality
- No scope to improve pay for practitioners to raise quality or improve viability of settings

### Means-tested entitlements

- Target funding towards families on lower income and give fewer hours or partial subsidy to higher income families
- Fully fund any funded entitlements so no top up fees required/permitted
- Prioritise a premium for disadvantage children over deadweight funding for high income families

# Conclusions

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-  The existing system needs to change to meet the needs of children, families and society
-  There are better options within the current funding envelope, which move towards a more effective system, but additional funding is needed to achieve all the government's stated aims
-  Small improvements could be made for a 10% increase in funding. Significant enhancements would require at least a 50% increase.
-  Government could map out a long-term plan of how to get to a better system, based on gradual increases in funding
-  Better targeted funding is a better investment – helping families with the cost of living, improving children's outcomes, raising parental employment and earnings and providing long term social and economic benefits.



## This work is being supported by:

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**Save the Children**



# Methodology & definitions

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## Methodology for estimating budgets and child numbers

### Data sources:

- Data from the Family Resources Survey for 2010 to 2020 was used to estimate the number of preschool (excluding those in reception class) children in each age group for each level of family gross earnings.
- The data was weighted using the survey gross weights and calibrated to the 2020 child population using ONS figures.

### Upated funding rates:

- The upated funding rate is the “fully funded rate” for 2020 estimated by the Department of Education at the time of the Cost Review in 2015. This included elements for EYPP at an annual £1,000 per child and to fully fund the local authority role in administering and supporting the system.
- Sources: [https://www.dropbox.com/sh/jahv701milmpf2e/AAA\\_Phys\\_CmdCLtid91TwUzZa?dl=0](https://www.dropbox.com/sh/jahv701milmpf2e/AAA_Phys_CmdCLtid91TwUzZa?dl=0) and [https://www.dropbox.com/sh/jahv701milmpf2e/AAA\\_Phys\\_CmdCLtid91TwUzZa?dl=0&preview=Costed+Scenarios.pdf](https://www.dropbox.com/sh/jahv701milmpf2e/AAA_Phys_CmdCLtid91TwUzZa?dl=0&preview=Costed+Scenarios.pdf)
- As this rate was only provided for three- and four-year-old children (at £7.49), a rate for two-year-old children (£8.46) was estimated using the differences in current funding rates and for one-year-olds (£9.77) using differences in delivery costs.
- Sources: <https://www.gov.uk/government/publications/early-years-funding-2020-2021> and <https://www.gov.uk/government/publications/cost-and-funding-of-early-education>

### Take-up rates:

- Based on take-up rates for similar current policies, it is assumed that take-up rates would be 93% for the initial 15 hours for 38 weeks and 80% for additional hours for three- and four-year-old children and 69% for all hours for children under age three.
- Sources: <https://explore-education-statistics.service.gov.uk/find-statistics/education-provision-children-under-5/2020> (universal three and four-year old offer and disadvantaged two year old offer) and <https://www.gov.uk/government/statistics/childcare-and-early-years-survey-of-parents-2019> (30 hours free childcare)
- Sources: <https://www.gov.uk/government/publications/early-years-funding-2020-2021> and <https://www.gov.uk/government/publications/cost-and-funding-of-early-education>

### Assumptions to note:

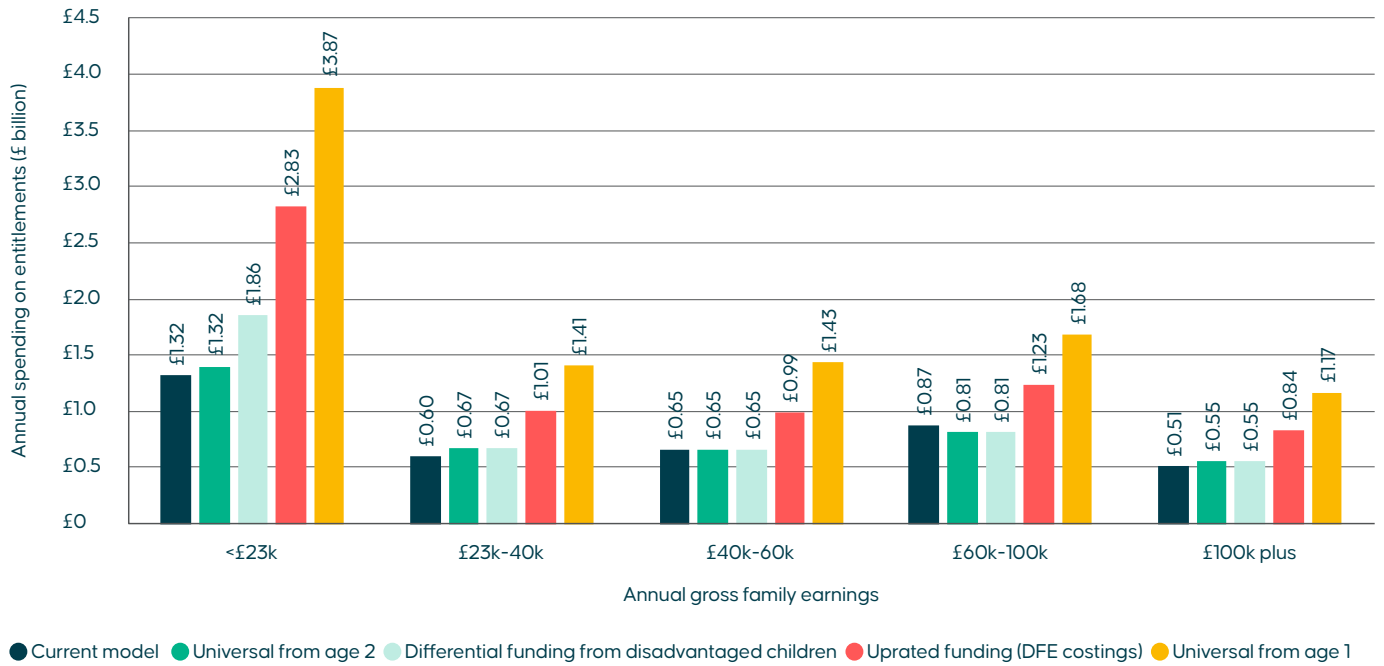
- The estimates are for funding rates and earnings patterns in 2020 prior to COVID-19 and it is assumed that there have not been any substantial changes to child numbers, parent work choices and earnings since then.
- The budget costs include only direct funding costs and it is assumed that administration costs would not change in the alternative models.
- It is assumed that take-up rates by parents would not change in the alternative models.
- It is assumed that the required places would be available for children, that is, there would be no supply constraints limiting the take-up of the free hours.

### Definitions

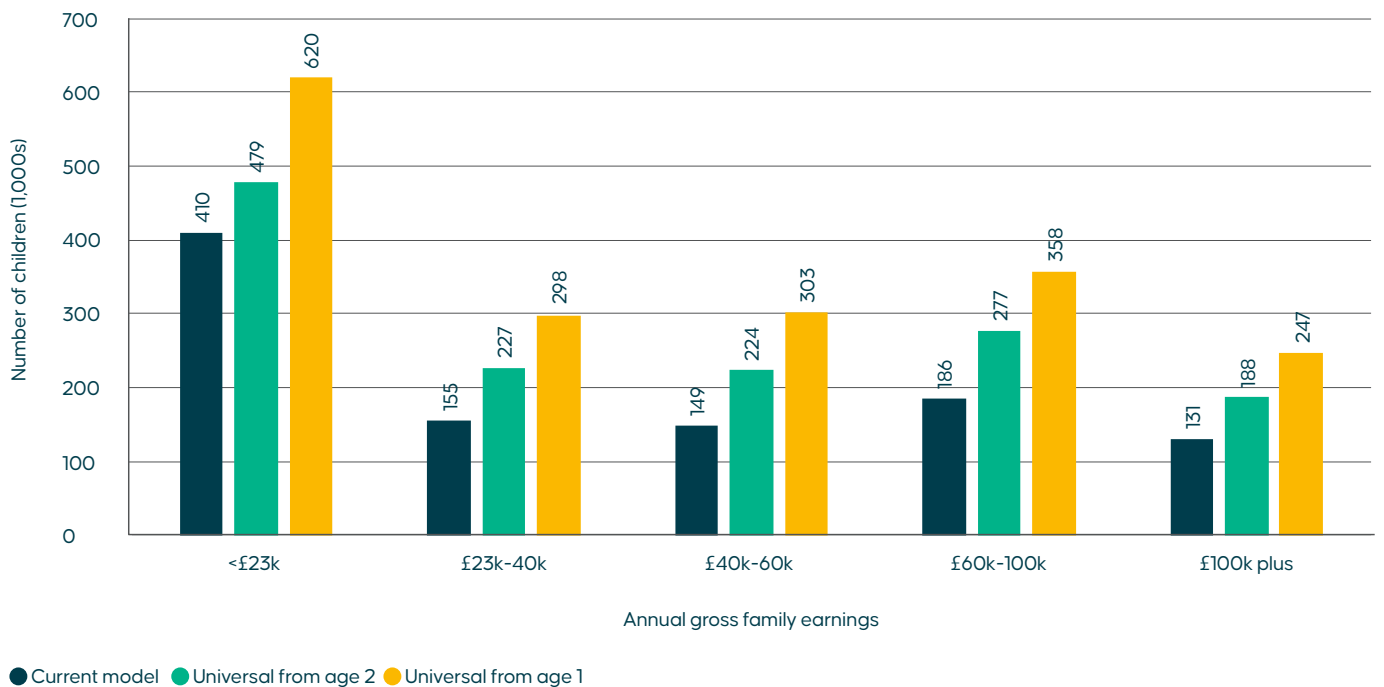
- These funding proposals cover children in early years provision prior to Reception.
- They cover any government funded hours whether offered by a childminder; a private, voluntary or independent provider; or a nursery, infant or primary school.
- Rates for all of the above are currently the same, except for the small number of maintained nursery schools which receive supplementary funding to recognise their additional costs. The detail of whether and how that should continue under any revised funding model has not been addressed here as it makes no difference to the headline figures.

# Appendices

## Estimated spending by family income



## Estimated number of children by family income



# References

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- Andrew, A., Bandiera, O., Costa-Dias, M. and Landais, C. (2021), 'Women and men at work', IFS Deaton Review of Inequalities [https://ifs.org.uk/sites/default/files/output\\_url\\_files/IFS-Inequality-Review-women-and-men-at-work.pdf](https://ifs.org.uk/sites/default/files/output_url_files/IFS-Inequality-Review-women-and-men-at-work.pdf)
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# Technical note for early years funding model budget estimates

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This note provides the technical background for the budget estimates and child numbers used in the discussion document “Solutions for an Improved Early Years System”

## Note structure

- The first section describes the base model used to estimate child numbers and the funding budget under the current system. The purpose of this is not to match current actual spending but to provide comparable estimates for the alternative models.
- The second section describes the methodology used to estimate child numbers and the funding budgets for alternative models.
- The third section summarises the caveats on the methodology.

## Base model for the current system:

Data from the Family Resources Survey for 2010 to 2020<sup>1</sup> was used to estimate the number of children in each age group who are eligible for the free early education entitlement in England. This data source was used because it contains information on earnings for both employed and self-employed parents; on benefit and tax credit receipt; and on whether four

year old children are in reception class. The years 2010 to 2020 were used to generate reasonably large sample sizes (20,993 preschool children in total) and to avoid using atypical data during the Covid pandemic.

Earnings data was missing for working parents for 6% of preschool children (defined as children up to age four but not yet in reception class) and missing values were set to 16 times the National Living Wage on the assumption that these parents would meet the earnings criteria to be deemed as “working” under the current requirement for 30 hours free childcare.<sup>2</sup> In addition, information on whether the child was in reception class was missing for 17% of four year old children and these children were randomly assigned to being in reception class in a manner that ensured that 50% of four year olds were included in the three and four year old preschool group. Parent earnings and income were indexed to 2020 levels using yearly survey averages. Finally, the data

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1. Department for Work and Pensions, NatCen Social Research. (2022). Family Resources Survey, 2020–2021. [data collection]. UK Data Service. SN: 8948, DOI: 10.5255/UKDA-SN-8948-1.

2. This could mean that the proportions of families in the lower family earnings groups are slightly overstated.

was weighted using the survey gross weights and calibrated to the 2020 population to ensure that the number of children accurately reflected the population numbers in 2020. The final weighted sample indicated that there were roughly 650,000 one-year-old children, 650,000 two-year-old children and 1,106,000 three and four year old preschool children in 2020.

The eligibility criteria for the three different strands of the current free entitlement were estimated in the following ways:

- Universal offer (currently applicable to three and four year olds): all children within the required age band.
- Disadvantaged (currently applicable to two year olds): all children within the required age band whose parents are either (a) in receipt of benefits<sup>3</sup> or (b) have total weekly family gross earnings less than or equal £312 and are not working or are receiving Universal Credit or tax credits.<sup>4</sup> While this is intended to approximate the current criteria for the offer for disadvantaged two year-old children, it does not capture children who are eligible for non-

economic reasons such as being looked after by a local authority or having an EHC plan. Hence, the estimated budget for this offer may understate the actual cost.

- Working parents (currently applicable to 30 hours free childcare for three and four year olds): all children within the required age band whose parents each have gross weekly earnings of at least £140 per week and not exceeding an annual cap of £100,000. The minimum earnings requirement of £140 per week is approximately equal to earnings for 16 hours at the National Living Wage in 2020.

Within the entire sample of preschool children, 19% of children had parents who met the disadvantage criteria<sup>5</sup>; 44% had parents who met the working criteria; and 37% had parents who did not meet either criteria (25% because at least one parent was not working, 6% because at least one parent was working but earnings were too low, and 5% because one parent had earnings above the cap of £100,000). These proportions were almost identical for all age groups.

3. Benefits include Income Support, Pension Credit, Income-based Jobseekers' Allowance and Income-related Employment and Support Allowance.

4. See <https://www.gov.uk/help-with-childcare-costs/free-childcare-2-year-olds>. The weekly threshold of total family gross earnings of £312 proxies the net household income limit of £15,400 with Universal Credit and gross household income limit of £16,190 with child tax credits.

5. Even allowing for the exclusion of eligible children for non-economic reasons, the 19% is considerably lower than the estimated 40% that would be eligible when the policy for two year olds was announced in 2014, but the income thresholds have remained unchanged since 2014 (see <https://www.gov.uk/government/news/number-of-2-year-olds-eligible-for-free-childcare-to-double>). According to 2020 statistics, the number of two-year-old children receiving the entitlement was 143,400, with a take-up rate of 69% (<https://explore-education-statistics.service.gov.uk/find-statistics/education-provision-children-under-5/2020>), suggesting that 32% of the population of 650,000 two year olds were eligible.



The number of eligible children for free hours was multiplied by current take-up rates to estimate the number of children who would use the free hours. The take-up rates were based on 2020 rates for the universal offer for 3-4 year old preschool children (93%) and for the offer for disadvantaged 2 year olds (69%) and on 2019 rates (the most recent available) for the additional 15 hours for 3-4 year old children with working parents (80%<sup>6</sup>).

The funding budget was estimated as the number of children using each of the three entitlement elements multiplied by the hourly funding rates in 2020 (£5.55 for two year olds and £4.94 for three and four year olds<sup>7</sup>) and by 570 (15 hours each week for 38 weeks<sup>8</sup>).

### Alternative funding models

The alternative funding models required two changes to the base model.

First, the models considered universal offers for children from age one. Evidence on appropriate take-up rates was not available for all elements and take-up was assumed to be:

- 93% for the initial 15 hours for children aged three and four (as currently observed).

- 80% for additional hours for children aged three and four (based on the additional hours for children of this age with working parents).
- 69% for all hours for children under age three (based on the initial 15 hours for children aged two meeting the disadvantaged criteria).

As in the base model, it was assumed that children taking up an offer would use the full hours and weeks on offer to generate an estimate of the total number of hours used. This may be less realistic for notably higher hours and weeks (such as 50 hours for 48 weeks), but this approach errs on the side on an upper bound for the cost.

Second, the funding rate for some options was replaced with the “fully funded rate” for 2020 estimated by the Department of Education at the time of the Cost Review in 2015.<sup>9</sup> A “fully funded rate” was only provided for three and four year old children (at £7.49). Estimates of “fully funded rates” for two year olds was obtained by multiplying the £7.49 for three and four year olds by the 2020 ratio of funding rates for the two age groups (£5.55 divided by £4.94), generating a rate of £8.46 for two year olds. For one year olds, the ratio of costs was used from

6. See <https://explore-education-statistics.service.gov.uk/find-statistics/education-provision-children-under-5/2020> for the take-up rates for the universal 3-4 year-old offer and the 2-year-old offer and the main report for the Childcare and Early Years Survey of Parents for 2019 (<https://www.gov.uk/government/statistics/childcare-and-early-years-survey-of-parents-2019>) for the take-up of the 30 hours free childcare.

7. See <https://www.gov.uk/government/publications/early-years-funding-2020-2021>. Cited funding rates are the means across all local authorities.

8. Assuming take-up for the maximum hours and maximum number of weeks may overstate the budget.

9. See [https://www.dropbox.com/sh/jahv701milmpf2e/AAA\\_Phys\\_CmdCLtid91TwUzZa?dl=0](https://www.dropbox.com/sh/jahv701milmpf2e/AAA_Phys_CmdCLtid91TwUzZa?dl=0) and [https://www.dropbox.com/sh/jahv701milmpf2e/AAA\\_Phys\\_CmdCLtid91TwUzZa?dl=0&preview=Costed+Scenarios.pdf](https://www.dropbox.com/sh/jahv701milmpf2e/AAA_Phys_CmdCLtid91TwUzZa?dl=0&preview=Costed+Scenarios.pdf).

the SEED study,<sup>10</sup> generating a rate of £9.77 (and an estimated rate of £6.08 for one year olds under the current rates). The higher rate for one year olds over two year olds reflects the evidence that costs are higher for the younger age group for reasons over and above differences in the statutory maximum staff:child ratios.

It should be noted that this “fully funded rate” included an element for “Disadvantage: estimate of additional cost to increase EYPP to £1,000 per child” which is considerably higher than the current EYPP rate. This rate also included “LA Role: Fully fund current local authority role in administering and supporting the system”.

### **Caveats**

There are some important points to note about this approach:

- The estimates are for funding rates and earnings patterns in 2020 prior to COVID-19 and it is assumed that there have not been any substantial changes to child numbers, parent work choices and earnings since then. Any ongoing trends would have small impacts on the budget, but no consideration has been given to the longer lasting and potentially larger impacts of the Covid pandemic on work behaviour or how the new
- free hours options might impact on parents’ work.
- The budget costs include only direct funding costs and no administration costs (except for the LA role described above). It is assumed that budget costs would not change in the alternative models. While moving to a simpler, single system could potentially reduce administrative costs, any changes would be small relative to direct funding costs.
- It is assumed that take-up rates would not change in the alternative models, specifically, that simplification of the system will not increase take-up.
- It is assumed that the required places would be available for children, that is, there are no supply constraints limiting the take-up of the free hours. This may be reasonable in the short term if the additional free hours replace hours currently paid for by parents. It may also be reasonable in the longer term if provision expands to meet any new additional demands.
- The budget estimates do not include any support for school age children which is currently present in Universal Credit and Tax Free Childcare (TFC).

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10. See <https://www.gov.uk/government/publications/cost-and-funding-of-early-education>.



For further information contact  
[info@kindredsquared.co.uk](mailto:info@kindredsquared.co.uk)



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