



Rialtas na hÉireann
Government of Ireland

Spending Review 2021

Executive Summaries – Tranche 1 Publications

DEPARTMENT OF PUBLIC EXPENDITURE & REFORM
JULY 2021

These papers has been prepared by IGEEES staff across a number of Departments. The views presented in the papers do not represent the official views of each Department or Minister.

IGEEES

Irish Government Economic and Evaluation Service

Contents

1. Capital Expenditure Review 2006- 2020.....	3
2. Challenges and Strategies for Reforming Publicly Funded Pensions Systems	5
3. Impact of Demographic Change on Health Expenditure 2022- 2025	7
4. Trends in Teacher Substitution	10

1. Capital Expenditure Review 2006- 2020

Executive Summary

This paper thematically analyses the Department of Enterprise, Trade and Employment's (DETE) capital expenditure over the period 2006 to 2020. Each programme is categorised into one of seven distinct themes and 21 sub-themes, reflecting the policy context in which the DETE has operated over the study period.

The Department's capital expenditure has been relatively stable over the period 2006 to 2019 – varying between €320m and €470m, before spiking in 2020 to over €1.2b due to capital supports introduced to support firms through the Covid-19 pandemic.

Over the study period the Department's capital expenditure has been focused on areas which are at the centre of its policy remit including: Innovation, Entrepreneurship and Scaling, Trade and Investment and Regional Development. There have been gradual shifts in the Department's expenditure - Entrepreneurship and Scaling has grown as a share of the Department's capital expenditure and consistently makes up over 35% of the Department's annual expenditure, while Regional Development focused expenditure has been more varied over the period, falling to 7% in 2016 before rising to 17% in 2019. The review establishes that there has been a consistently low share of the Department's funding invested into the digital transformation and green transition.

Over the period considered, there has also been a gradual change in the policy instruments employed by the Department and the beneficiaries of its expenditure. Through the study period there has been increased use of equity and loan instruments – growing from 2% of total expenditure in 2006 to an average of 12% over the period 2018-2020. These instruments are now a key part of how the Department engages with the enterprise base, along with the continued use of grant, infrastructural supports and cluster and collaboration supports. This mix of policy instruments is important for facilitating engagement and support of the enterprise base through a number of different ways.

While support to Enterprise Ireland and IDA clients continues to be the main focus of capital expenditure for DETE, there has been an increase in support to those firms beyond EI and IDA's traditional client base – to firms availing of supports through LEOs, SBCI, Microfinance Ireland and ITI. Supports to these firms are an important part of encouraging Entrepreneurship and Scaling more widely across the enterprise base – particularly given the wide reach achieved by LEOs through high individual award counts across a number of programmes.

The review also examined the profile of own-resource income which is being generated by the Department's agencies. This income represents a growing share of Enterprise Ireland's capital expenditure – accounting for €108m of its total €280m in expenditure in 2020. Own-resource income

has been highly variable for the IDA over the study period and stood at €17m in 2020, down from an average of €63m over the period 2006-2010. The variability of this income for both agencies can present challenges for budgetary planning.

As the range of supports which the Department offers continues to broaden and is availed of by a wider group of firms it is important that DETE continues to ensure that its expenditure is impactful, that programmes remain relevant and aligned with policy, and that it is achieving value for money.

2. Challenges and Strategies for Reforming Publicly Funded Pensions Systems

Executive Summary

There are various policy levers that can be utilised to ensure pension systems are financially sustainable. Initial recalibrations of publicly funded pension schemes tended to increase employment-related pension contributions or, alternatively, increase the subsidies from general tax revenue.

As the proportion of pension recipients significantly increased relative to the proportion of current workers, the limits for increasing contributions or general tax funded subsidies became apparent. This was clearly illustrated by estimates based on the EU 15 countries in 2000 which identified that, if average pension benefits remained unchanged, average pension contributions from employees would need to increase to 26% of gross earnings by 2050. Such levels of employment-related contributions solely for funding retirement benefits was considered unsustainable and the issue of intergenerational fairness also emerged as a political consideration.

Despite the emerging consensus on the need for reducing public expenditure on pensions, many countries initially demonstrated a reluctance to implement sufficient reforms. Several academic papers from the 1980s (or earlier) suggested that it was not possible to reform publicly funded pension systems primarily due to the emergence of a self-interested “grey vote”.

However since 1990, most OECD countries have implemented at least one substantial expenditure-reducing public pension reform. This suggests that the political costs of pension reforms are not insurmountable, as was previously suggested in some academic papers. It is now recognised that it is possible to implement expenditure-reducing pension reforms, and a number of strategies have been identified to overcome the difficulties that remain.

Key Findings

- Pension reforms are constrained by legal considerations and require a strong evidence base and clear public interest basis before they can be implemented.
- Academic papers (Boeri *et al*, 2002, 2012) reveal that the general public do not understand pensions. This lack of understanding contributes to a “status quo bias” where individuals are more likely to resist reforms (Boeri and Tabellini, 2012).
- Where individuals understand and accept pension reforms are necessary, the preferred reform tends to vary with personal circumstances (e.g. older employees tend to favour increased pension contributions relative to middle-aged workers who are more favourable to benefit cuts).

- In the context of pension reforms, Pierson (1998) and Boeri *et al* (2002) identify the basic axiom of political science that concentrated groups (e.g. those who oppose any pension reform) will generally be advantaged over diffuse ones (e.g. those who recognise pension reforms are required, but have different preferences).
- Public institutions have a very important role in implementing (or preventing) pension reforms. This is more so the case where countries have relatively large existing publicly funded pension obligations.
- Where countries have large levels of accrued pension expenditure / obligations, there is also likely to be more public resistance to pension reforms. This is chiefly attributable to larger numbers of existing and near-term beneficiaries.
- Academic literature has identified the following strategies as aiding in overcoming the obstacles to implementing sustainability-improving pension reforms*:
 - Phasing implementation of reforms;
 - Incorporating more actuarial features;
 - Providing options and incentives within reforms;
 - Improving the public's understanding of pension systems;
 - Developing a broad political consensus;
 - Including some offsetting measures; and
 - Obfuscation and creating division (Kohli and Arza, 2011)
- Although implementing pension reforms remains difficult, it is now recognised a number of strategies can be implemented to overcome the political, institutional and legal challenges to ensure needed pension reforms are implemented in a meaningful way.

** These strategies are identified in various academic literature. The inclusion of an identified strategy in this list should not be interpreted as a recommendation from the authors.*

3. Impact of Demographic Change on Health Expenditure 2022- 2025

Executive Summary

Background

- Demographic change is a driver of health expenditure and is considered in the annual Budget process in order to maintain the 'Existing Levels of Service' (ELS) that have been approved by Government.
- This paper provides estimates of the additional funding required to maintain ELS out to 2025 when considering only demographic change. It therefore assumes no policy change in the model of care provided or any potential savings that may arise.
- Previous demographic estimates have been informed by initial IGEES work in this area (Connors et al., 2016; Connors et al., 2019). However, as highlighted by the Parliamentary Budget Office (2019), the demographic cost pressure estimated in this work is likely underestimated as only certain service areas of the total health budget are modelled.
- The previous IGEES work (Connors et al., 2016; Connors et al., 2019) reflects the limited age specific expenditure data in the Irish health system. Age specific administrative data on expenditure is available for approximately 70% of public acute hospital expenditure and 60% of Primary Care Reimbursement Services expenditure, representing approximately 40% of the operational service areas in the health budget that can be linked to direct service utilisation.
- While the availability of administrative age specific expenditure data in the health system has not improved, it has been possible to draw on ESRI publications from the Joint Research Programme in Healthcare Reform with the Department of Health to improve on estimates on the impact of changing demographics. This paper therefore seeks to build on the previous IGEES work by expanding the scope of the service areas considered and by using more age specific data.

Methods

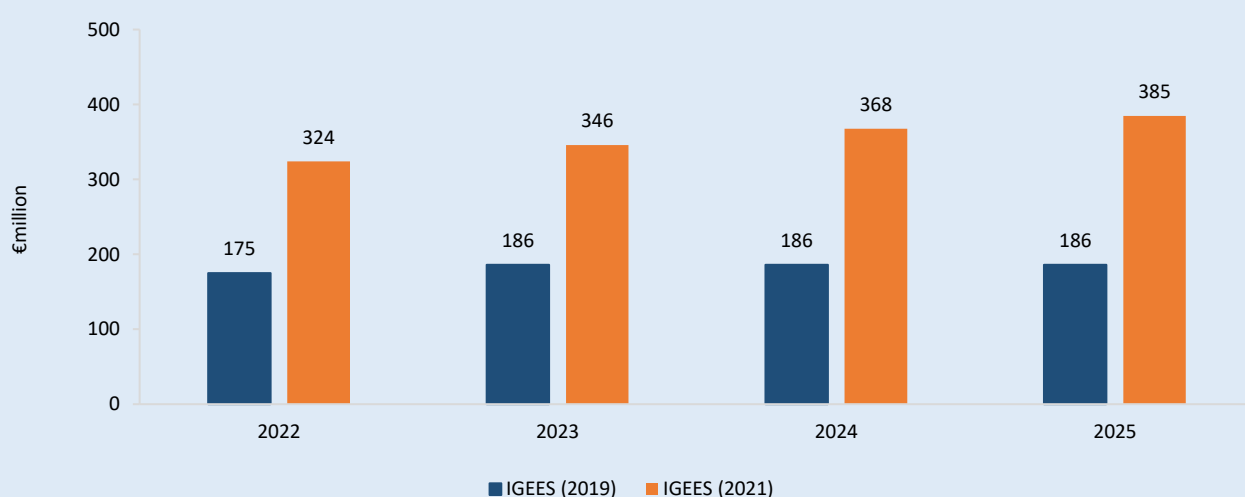
- In this paper, only the demographic impact on ELS is considered. Healthcare prices (pay and non-pay) are held constant and thus real expenditure (volume-based) growth is modelled. However, as highlighted by the Fiscal Council (2020) and ESRI (Keegan et al., 2020), the majority of ELS expenditure requirements relate to pay and price increases. These are subject to examination elsewhere as part of the Budget process.

- A cell-based method was used to model available age and sex specific expenditure data, where the expenditure by age and sex is combined with age and sex specific population projections. Expenditure lacking age specific information was modelled using the total population growth, or with age specific cohort growth where service utilisation could be linked to specific age and sex cohorts.
- Population projections were created using the CSO 2019 population estimate and the CSO's assumptions around fertility and mortality developments. The immigration and emigration numbers applied in this analysis are consistent with the Department of Finance's Stability Programme Update 2021, where the migration estimates for 2020 and 2021 have been adjusted to take account of the impact of Covid-19. To account for the uncertainty around net migration in population projections, a sensitivity analysis was undertaken where net migration was varied for the period 2022-2025.

Findings

- Using a base year of 2019, the paper estimates that an increase in expenditure of **€324m** is required in **2022** to maintain ELS when considering only demographic change, increasing to **€385m** in **2025**. This compares with an estimate of **€175m** for **2022** by IGEES (2019), increasing to an average annual cost of **€186m** between 2023-2026. The main reason for the increase in estimates in this analysis is due to the use of more age specific data and expanding the scope of service areas modelled.

Figure 1. Demographic cost pressures 2022-2025 estimated by IGEES (2019) and this paper IGEES (2021).



Policy implications and future research

- This analysis feeds into one of the objectives of IGEEES expenditure reviews, which is to support the Government's deliberations in setting multi-annual expenditure ceilings through analyses of future pressures and challenges (Irish Government Economic Evaluation Service, 2021).
- While this analysis has drawn on the outputs of the Department of Health and ESRI's Joint Research Programme, improvements to health administrative data would provide a firmer basis for future estimates. The implementation of Individual Health Identifiers could improve future analyses.
- It is also a strategic goal for the Department of Health to improve the estimates of future health expenditure requirements. The move towards population-based resource allocation, as outlined in the Sláintecare reform programme, could potentially improve the predictability and transparency of funding allocations in health. This would link various population characteristics to funding allocations using a formula, where demographic characteristics such as age and sex are fundamental components of such funding formulas.

4. Trends in Teacher Substitution

Executive Summary

Context and rationale for review

- The schools sector has a staff of roughly 87,000 teachers and Special Needs Assistants; with a paybill of nearly €5.3 billion, accounting for 72% of total current expenditure. Teaching staff account for 77% percent of school staff on the Department of Education and ETB payrolls.
- The demand for teaching posts is driven by the pupil population, and the various staffing schedules and circulars. A separate Spending Review paper, 'Teacher Allocations: Developing a model for Mainstream Teacher Projections', sets out a model to project mainstream teaching posts based on pupil projections.
- As well as posts, substitution is driven by overall rates of pay, but also the demography of the staff population itself.
- In addition, statutory and sectoral policy also has implications for substitution demand. For example, changes in family leave have implications that are particularly pronounced in a large workforce whose gender and age breakdown gives rise to higher levels family leave than other sectors. Similarly, Curricular Reform policy measures will also impact staff expenditure.
- Understanding the payroll dynamics above and the trend in underlying drivers can be used to inform expenditure planning as well as to feed into strategic workforce planning discussions.
- This paper explores trends in substitution of teachers, its drivers and the costs arising.

Teacher Substitution

- Substitution arises when a school employs a substitute to cover a short or long term substitutable absence of a teacher. There are approximately 125 types of leave available to teachers and in the 2019/20 academic year roughly 1.6 million absence days were recorded.
- For Primary, Voluntary Secondary, Community and Comprehensive Schools, expenditure on substitution and part time hours has been increasing from just under €200.6 million in 2015 to €243.5 million in 2019.¹ Substitution expenditure for Special Needs Assistants (SNAs) has increased from €12.8 million in 2015 to just under €21 million in 2019. This paper examines the drivers behind the increasing teacher substitution expenditure. The paper analyses the trend in the instances and length of leave to better inform payroll cost estimates.

- Teacher absences affect payroll expenditure in different ways depending on whether the type of leave is substitutable and/or payable. A leave that is substitutable means a substitute teacher can be employed to fill the absence. A leave that is payable means the teacher on leave will continue to be paid. The majority of absence days are substitutable and payable. **This paper will only examine leave types that are substitutable.**
- Teacher absences are recorded on the Online Claims System (OLCS) held by the Department of Education.
- The drivers in substitution demand examined are:
 - Teacher numbers
 - Leave policy changes
 - Demographics of the teacher population
 - Teacher professional learning

Drivers in substitution demand:

1. Teacher numbers

- Teacher numbers at both primary and post primary level have been increasing in recent years, from a total of just over 60,000 in 2014/15 to around 70,000 in 2019/20.
- The higher number of teachers has resulted in an increase in the number of absence days.
- The main driver behind increased teacher numbers is increased pupil enrolment. Based on the Department of Education Statistics Unit's projections, primary level enrolments peaked in 2018/19 and post primary level enrolments are expected to peak at 2024/25. Enrolments are expected to decrease out to 2035/36 and 2038/39 at primary and post primary respectively. Projections of mainstream teacher allocations have been developed as part the Spending Review paper, 'Teacher Allocations: Developing a model for Mainstream Teacher Projections'.
- This projected decrease in pupil enrolment, in the absence of policy change, will reduce teacher numbers and as a result impact on substitution expenditure arising.

2. Statutory leave policy changes

- There have been multiple changes to statutory leave in the last number of years, most notably the introduction of paternity leave, the extension of parental leave and the

¹ Individual Education and Training Boards (ETBs) manage the payrolls for the ETB post-primary schools in their respective areas; which accounts for a significant share of post-primary schools. Following the merging of the Vocational Education Committees to ETBs, access to all ETB payroll data is limited presently. ETBs are currently migrating to a payroll shared service that will improve data availability over the coming period.

introduction of the Public Service Sick Leave Scheme. These leave policy changes have resulted in more absence days.

3. Demographics of the teacher population

- At primary level, there is a peak in the distribution of teachers between 25 and 45 years old (73% of primary teacher population) and nearly 85% of the teacher population are female. At post primary level, the age distribution of teachers is relatively more evenly spread across ages and just under 69% of the teacher population are female.
- These demographics of the teacher population where there is currently a large number of young female teachers, particularly at primary level, are contributing to increased substitution demand as this is an age where family-related leave is common. For example, maternity leave, parental leave etc.
- Teachers aged between 30 and 40 years old account for the largest share of absence days at primary and post primary level. In 2019/20, roughly 56% and 49% of total absence days at primary and post primary level respectively were taken by teachers aged between 30 and 40 years old.
- As the bubble of the teacher population currently in their 30s grows older, leave types could shift away from long term leaves such as maternity leave and towards shorter term absences such as certified illness.

4. Teacher professional learning

- Teacher professional learning results in absence days from curriculum and assessment reform and also teacher Continuing Professional Development (CPD).
- Junior Cycle reform introduced on a phased basis from 2014/15 has also contributed to the recent increase in substitution demand. As the reform of Junior Cycle becomes more established in schools absence days for Junior Cycle management resources are expected to cease, and absence days necessary to implement the Junior Cycle, such as professional time and the coordination of Subject Learning and Assessment Review meetings, are likely to continue but decrease over time.
- There has been an increase in the number of absence days taken by teachers for CPD. This is mainly due to a higher number of courses available to teachers.

Substitution expenditure

- Substitute teachers are paid a range of different rates depending on whether the leave is long term or short term and whether the teacher is qualified or unqualified.

- Maternity leave accounts for the highest substitution expenditure, with certified illness, parental leave and additional unpaid maternity leave also accounting for a high level of substitution expenditure.
- While increased teacher numbers will have contributed to the rise in substitution expenditure, other factors such as demographics and policy or curricular reform measures have had an effect also. This is seen through an increase in the average substitution expenditure per primary and post primary teacher increasing across the time period.
- Leave policy changes have resulted in increased substitution expenditure. The introduction of paternity leave in 2016 has resulted in nearly €5.6 million in substitution expenditure. Similarly, the introduction of the Public Service Sick Leave scheme has resulted in around €43.5 million from 2016 – 2020 in substitution expenditure, from critical illness leave and temporary rehabilitation remuneration leave.
- Family related leave types, such as maternity leave, parental leave and paternity leave, accounted for 63% of total substitution expenditure in 2019. An increase in family leave substitution expenditure can be seen from 2016 – 2020. This can be explained by the high concentration of the current teacher population moving into their 30s, combined with a large share of the teacher population being female.
- The additional types of leave available to teachers for CPD and Junior Cycle reform have resulted in an increase in substitution expenditure. CPD substitution expenditure increased by 65% from 2016 to 2019. There was also nearly €1.7 million in substitution expenditure in 2019 for Junior Cycle Reform.