Sectoral Wage Growth in Ireland

By Enda Keenan[1]

The Irish economy continues to experience robust growth, supported by strong labour market performance. Until the recent pick up in compensation growth however, wage inflation has been conspicuously absent. The unemployment rate has declined from a peak of 15.9 per cent in 2011 to a ten-year low of 4.9 per cent in Q3 2019. A reduction in domestic labour market slack is bringing the economy close to full employment levels, with the potential for earnings to rise further as labour market tightness persists.[2]

The recent increase in earnings has not been equally spread across all income deciles or sectors over time as shown from the CSO data release on Earnings Analysis using Administrative Data Sources (EAADS).[3] Analysis of these data shows changing pay dispersion patterns at a sectoral level. Pay dispersion measures the difference between the wages paid to the highest earners in a sector when compared to the lowest earners in that sector. Pay dispersion has increased in the multinational dominated sectors, while aggregate pay dispersion has fallen, mostly due to trends in the public non-traded sectors.

Overall, between 2011 and 2018 weekly earnings by decile show employees in the first decile i.e. the lowest 10 per cent of earners experienced an increase in median pay of 10.6 per cent to €202.91, while those in the ninth decile experienced an 8.7 per cent increase to €1,373.90 (See Chart 1). In 2018, the highest 1 per cent of males were estimated to earn in excess of €2,400 per week, while earnings for the top 1 per cent of females began at the lower point of €2,100 (12.5 per cent less). The

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[1] Irish Economic Analysis Division

[2] See Byrne, S and McIndoe-Calder, T (2019) "Employment Growth: Where Do We Go From Here?" Central Bank of Ireland Quarterly Bulletin Signed Article. QB3 – July 2019.

[3] The EAADS employs the P35L dataset from the Revenue Commission to provide details of gross annual earnings (before deduction of tax, PRSI and superannuation) and number of weeks worked in the year for all employments in the non-agricultural economy. Weekly earnings are calculated by dividing the gross annual earnings by the number of weeks worked as declared on the P35L file.

median income (50th percentile) across all employed persons was €593 per week, with the mean figure of €741 indicating that the distribution of earnings is skewed towards high earners.

Chart 1: Change in weekly median earnings by decile (2011-2018)

Level change (lhs) ◆ Percentage change (rhs)
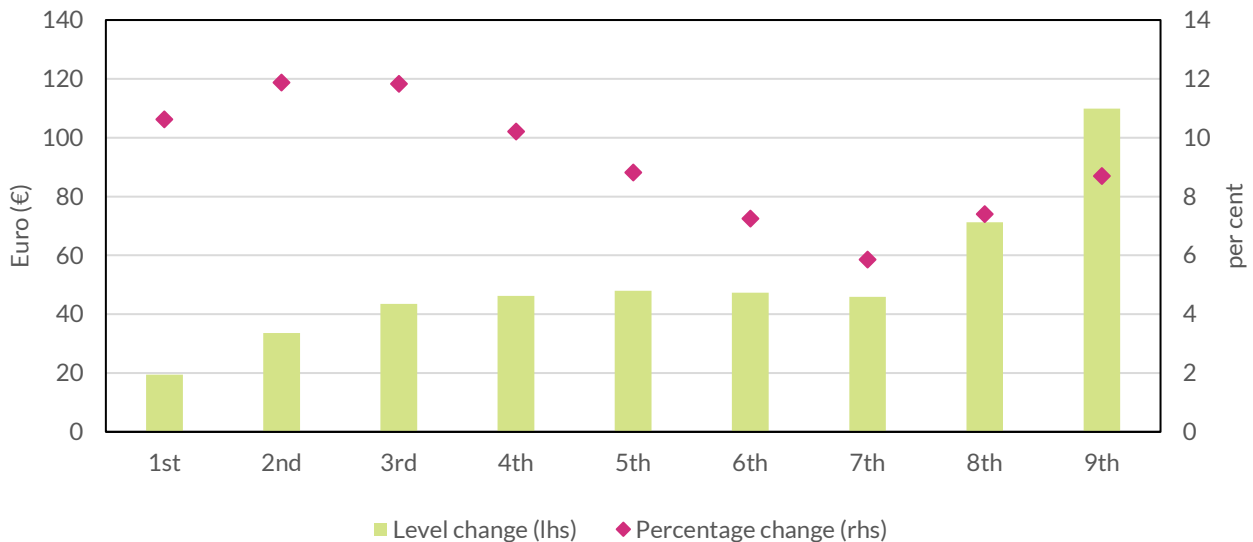
Looking at earnings by production sector shows a greater level of median earnings for workers in high value-added sectors that are associated with multinational enterprises. These are sectors where levels of productivity and gross value added are high due to the capital-intensive nature of activities and employees typically exhibit higher educational attainment levels. Holton and O'Neill (2017) observed previous pay dispersion in Ireland increasing towards the height of the boom period, driven almost entirely by rising returns to skills.[4] CSO data on earnings in multinational firms estimate that the average annual wage in 2017 for employees was approximately €50,000, while the average wage in Irish-owned firms was closer to €33,000 a year.[5] These higher wages were identified for the higher-skilled sectors of ICT, financial, and scientific and technical activities, with US and Japanese firms offering the highest average wages.

The EAADS data provides the share of employees in each earnings decile for each NACE sector from 2011 to 2018 (Table 1 below). This breakdown enables the identification of high earning groups in each sector relative to the national distribution of earnings. In 2011, 23 per cent of employees in the ICT sector recorded weekly earnings that placed them in the highest earnings decile nationally, with figures increasing to 31 per cent in 2018. In other words, almost one in three workers in this sector earn in excess of €1,374 per week in 2018. The financial and industrial (manufacturing) sectors also

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[4] Holton, N. and O'Neill, D. (2017) "The Changing Nature of Irish Wage Inequality from Boom to Bust" The Economic and Social Review, Vol. 48, No. 1, Spring, 2017, pp. 1-26
[5] CSO: Foreign Direct Investment in Ireland 2017

recorded 23 and 15 per cent of workers in the highest earnings decile, respectively.[6] Comparatively, only 1 per cent of employees in the accommodation and food services sector are in the highest earning decile reflecting the large proportion of employees in part-time working arrangements amongst other sectoral idiosyncrasies. These findings are consistent with research on pay dispersion the results of which suggest that economies that are highly FDI-dependent are likely to display greater pay dispersion because of inter-sector pay differentials (Galbraith, 2011).

Table 1: Share of Employees in Highest Pay Decile by NACE Sector

	2011	2012	2013	2014	2015	2016	2017	2018
B-E Industry	14	15	14	16	15	15	15	15
F Construction	5	5	5	5	5	5	5	5
G Wholesale and retail trade; repair of motor vehicles and motorcycles	4	5	5	5	5	5	6	5
H Transportation and storage	8	8	8	8	7	8	7	7
I Accommodation and food service activities	1	1	1	1	1	1	1	1
J Information and communication	23	24	25	28	29	30	31	31
K-L Financial, insurance and real estate	21	21	22	22	22	22	22	23
M Professional, scientific and technical activities	14	14	15	16	16	17	17	17
N Administrative and support service activities	4	4	4	4	4	5	5	5
O Public administration and defence; compulsory social security	17	15	15	15	16	15	16	15
P Education	17	16	15	13	13	10	10	10
Q Human health and social work activities	8	8	7	7	7	7	6	6
R-S arts, entertainment, recreation and other service activities	3	3	3	4	4	4	3	3
All	10	10	10	10	10	10	10	10

Sectors

While the EAADS data provide an overview of pay dispersion at an aggregate economy level, it does not identify pay dispersion of employees within an individual sector. This can be useful to identify the volume of pay received by high earning employees relative to low or middle earners in the same sector. By combining the distribution of employees per income decile in Table 1 with the median earnings per decile and NACE sector employment figures from the Labour Force Survey, it is possible

[6] Industry (B to E) is an agglomeration of NACE sectors including Mining and Quarrying (B), Manufacturing (C), Electricity, Gas, Steam and Air Conditioning Supply (D) and Water Supply; Sewerage, Waste Management and Remediation Activities (E). Much of the Pharmaceuticals and Medical Device Technologies operations are located within this sector.

to attain an approximation of the total weekly earnings in each sector along with the proportion received by the highest decile of earners specific to that sector. For example, in the construction sector 5 per cent of employees are in the highest earnings decile, which constitutes approximately 7,200 employees earning in excess of €1,374 per week.

In terms of the share of overall sectoral earnings received by the highest earning decile of employees, the multinational-dominated sectors clearly stand out with ICT recording a value of 45.4 per cent (See Chart 2). Similarly, in the financial and manufacturing sectors the figures are 35.6 per cent and 26.5 per cent, respectively.[7] The earnings for this upper decile have increased strongly in recent years, particularly within the ICT sector, where the top decile of earners received 37.1 per cent of overall earnings in the sector in 2011 rising to 43.9 per cent in 2018. Conversely, the non-traded public sectors have experienced a decrease in pay dispersion, particularly in the education sector as the figure for the top decile of earners declined from 32 per cent to 18 per cent.

Chart 2: Share of Earnings in Highest Pay Decile by NACE Sector
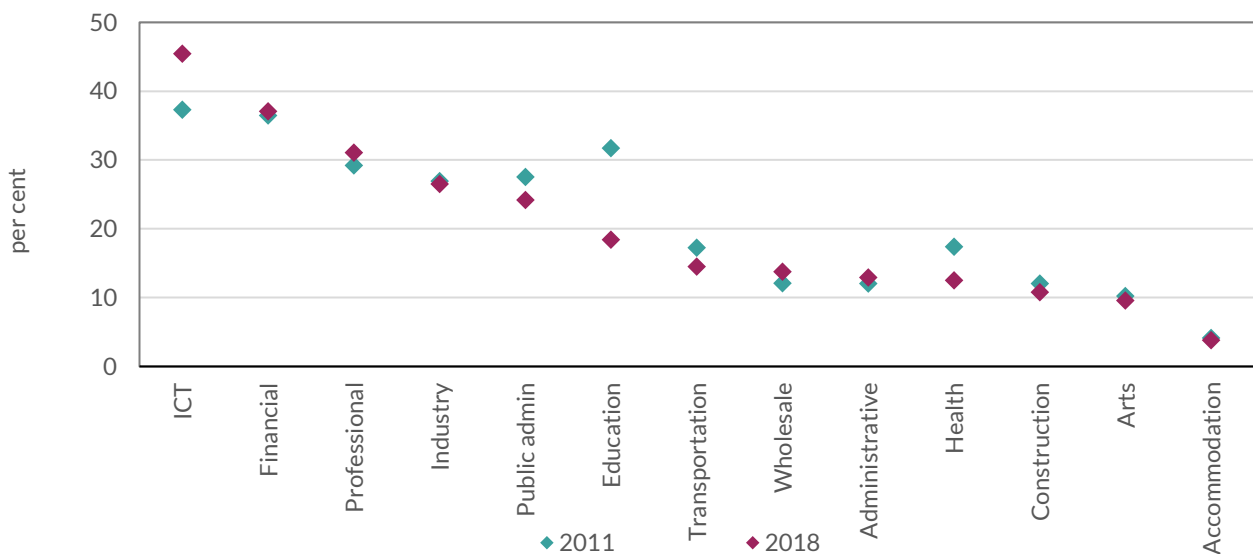
In aggregate terms, wage dispersion has decreased slightly with earnings across all sectors received by the highest decile declining from 22.8 per cent to 21.1 per cent. Collective earnings for the lowest four deciles have risen from 17.9 per cent to 18.8 per cent. Trends observed in the EAADS data correspond

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[7] The figures in manufacturing are masked somewhat by the aggregation of several industries, as potential analysis on sub-sectors such as chemicals and pharmaceuticals would be expected to yield far higher levels of dispersion. For instance, DBEI Annual Employment Survey data show the chemicals and pharmaceuticals manufacturing to equate to less than 1.5 per cent of total employment, yet it accounts for almost 40 per cent of merchandise exports in a capital-intensive sector dominated by a small number of multinational firms.

to the recent CSO SILC release that demonstrated a decline in the Gini Coefficient, a measure for the distribution of income, from 0.311 to 0.297 over the same time period.[8]

This aggregate trend appears to be driven by the non-traded public sectors of health, education and public administration, which underwent a number of emergency measures following the financial crisis including voluntary redundancy schemes and extraordinary emergency pay legislation to limit Exchequer spending. Research by Gomes (2019) suggests that such a difference in dispersion between the public and private sectors could cause perverse effects such as an insufficient amount of highly skilled persons employed in the public sector.[9] Additionally, the sectors experiencing greater levels of wage dispersion such as ICT and financial services are competing internationally on a search and match basis to attract the best talent and as such may have to pay greater wage premia to attract and retain staff.

EHECS data on job vacancies shows the multinational-dominated sectors to have displayed a relatively high vacancy rate in recent quarters suggesting an inability to meet labour demand with current domestic labour supply. There may be additional pressures on domestic firms to increase wages in order to retain staff in light of the current labour market tightness which if it materialised could serve to reduce overall firm competitiveness.

[8] The Gini Coefficient is a statistical measure of the distribution of income within an economy. A higher coefficient indicates greater inequality, with high income individuals receiving much larger percentages of the total income of the population. A value of 0 denotes perfect inequality and a value of 1 denotes perfect inequality
[9] Gomes, P (2019) "Public-Sector Employment, Wages and Human Capital Accumulation" University of Cyprus Working Paper 07-2019