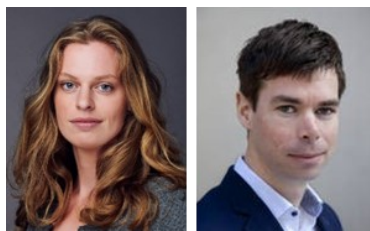


## **More uncertainty, but no financial compensation: Wage differentials between permanent and flexible jobs in The Netherlands\***



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and Maikel Volkerink (De Nederlandsche Bank)

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JEL codes: J31.*

*Employees with a flexible contract, that is those with either a temporary contract, temporary agency workers, or those on a contract with flexible working hours, face more job and income insecurity than employees with a permanent contract. In competitive labour markets, they should be compensated for this uncertainty. In most countries, however, wages of flexible jobs are lower than those of permanent jobs. We find that this is also the case for the Netherlands between 2006 and 2019, in particular for men and higher educated employees. A critique on wage comparisons is that sample selection may lead to biased results. After controlling for sample selection, we find wage differentials close to our baseline estimates.*

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\*Disclaimer: this brief is based on [DNB Working Paper 779](#). The views expressed in this article do not necessarily reflect those of De Nederlandsche Bank.

## Wage penalty for flexible workers

Flexible employment – i.e. temporary employment contracts, temporary agency work, and employment contracts with a variable number of hours per week – has raised concerns among policy makers. While workers with these types of contracts face more job and income insecurity, wages of workers with flexible jobs are on average lower than those of permanent jobs. In fully competitive labour markets, we would expect higher wages for flexible jobs than for permanent jobs, to compensate for lower job and income security (De Graaf-Zijl, 2005; Rosen, 1986; Sullivan & To, 2020). On the other hand, wages for flexible jobs may be lower than for permanent jobs, because flexible employees have lower levels of bargaining power. Because it is more difficult to get dismissed, permanent employees are able to demand higher wages (Van der Wiel, 2010).

A wage penalty for flexible employment seems universal, but the Netherlands is an interesting case study. First, the wage differential between permanent and flexible work in the Netherlands is among the highest in Europe. Furthermore, both the growth rate and the level of flexible employment in the Netherlands are exceptional from an international point of view. The share of employees with a flexible job, i.e., employees with a temporary contract, temporary agency work, and jobs with flexible working hours, has increased from 16% in 2003 to almost 27% in 2019.

The empirical literature typically finds lower wages for flexible or temporary employment than for permanent employment in most countries. Likewise, negative wage differentials were found for The Netherlands. Early studies found wage differentials between -3% and -5% using survey data between 1991 and 2002 (De Graaf-Zijl, 2005; Dekker, 2007). More recently, Smits et al. (2019) found a wage differential of -7%, with the size of this wage differential varying along the type of flexible employment: the differential was smallest for employment contracts with a variable number of hours per week and largest for workers with temporary contract with a duration less than one year.

## Exploiting new data and methods

We study wage differentials in the Netherlands between 2006 and 2019 for different types of flexible employment: temporary employment contracts, temporary agency work, and employment contracts flexible working hours. We estimate these differentials in the baseline using Weighted Least Squares (WLS) and exploiting a matched employer-employee dataset with a sample of Dutch employees, including 1.1 million individuals. This dataset is a combination of administrative and labour force survey data and contains individual characteristics such as level of education, age and gender, and job characteristics such as occupation, tenure, and whether the job includes managerial tasks.

We contribute to the literature by examining how the wage differential has evolved over time and the use of more robust methods to estimate wage differentials to control for differences between permanent and flexible employees. Additionally, while most of the literature compares wages of employees with temporary contracts with employees with permanent contract, our data allows us to estimate wage differentials for three types of flexible employment simultaneously: temporary contracts, workers with flexible hours and temporary agency work.

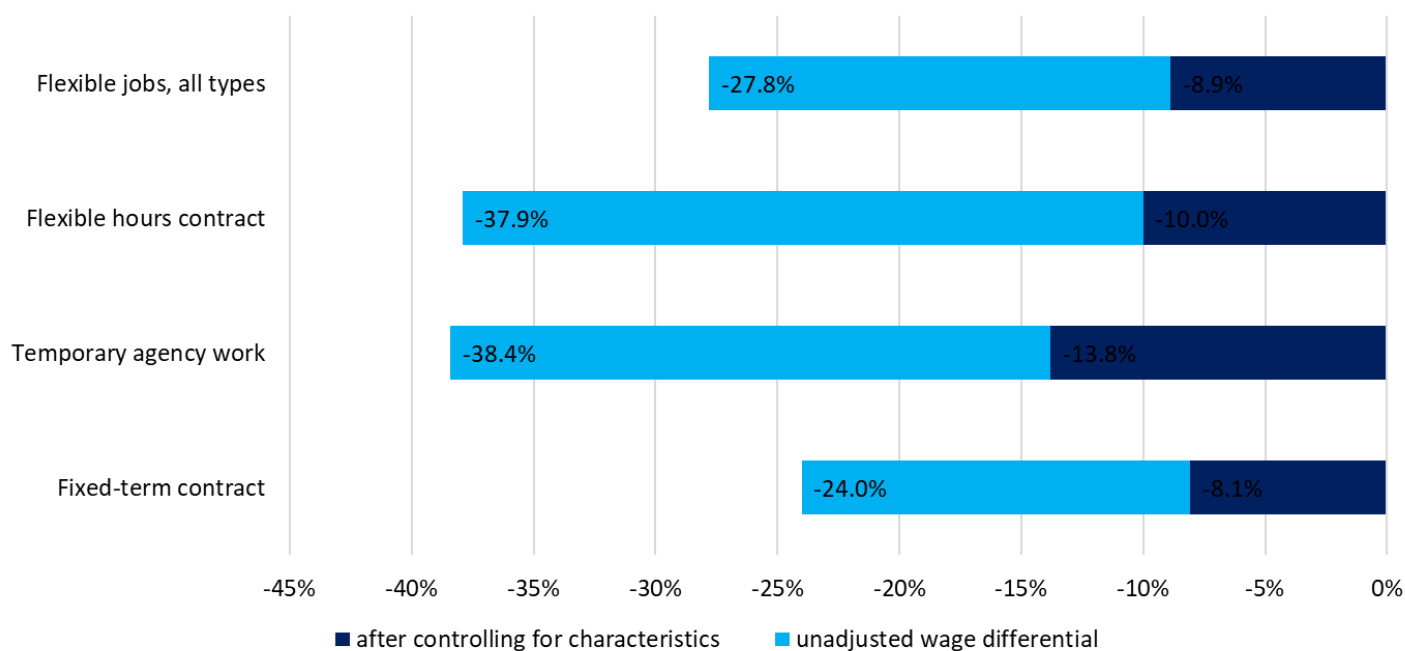
## Wage differential largely attributable to employee and job characteristics

There is a substantial unadjusted wage gap between workers with a permanent and flexible job. With €17.70, the average hourly wage of flexible workers was almost €6 lower than workers with a permanent job (€23.30). In a simple regression, with only flexible work as an explanatory variable, the overall wage gap between workers with a flexible and a permanent contract is approximately 28% (Chart 1). The wage gap is the smallest for employees with a temporary contract and largest for temporary agency workers.

At the same time, there are also major differences in characteristics between employees with a permanent and flexible job. For example, workers with flexible employment are, on average, younger than employees with a permanent contract, in particular employees with a flexible hours contract. Moreover, employees with a flexible contract, in particular temporary agency workers and employees on a contract with flexible hours, are less likely to be higher educated. Employees with a flexible job are also less likely to have a job at a higher professional level or a job that includes managerial tasks. Finally, 74.6% of the employees of temporary agencies has a job tenure of less than two years; this is 17.7% of the employees with a permanent contract. The difference between average wages of employees with permanent and flexible contracts can be partly be attributed to these differences in job and employee characteristics.

After adjusting for all available employee and job characteristics, the wage differential declines between flexible and permanent work declines but remains substantial. On average, we find a wage differential of -8.9% between flexible and permanent employment in the 2006-2019 period. The wage differential varies quite a bit across different types of flexible work: it is -8.1% for employees with a fixed-term contract, -13.8% for temporary agency workers, and -10.0% for employees with a flexible hours contract.

**Chart 1: Job and employee characteristics explain large share of wage gap between flexible and permanent work contracts**



Source: Statistics Netherlands Microdata, own computations.

### Digging deeper into the data: differences between groups and over time

Our rich dataset also allows us look at wage differentials among different groups at the labour market. When we focus on gender, we find that the wage penalty between flexible and permanent employment is larger for men than women. For example, the effect of having a fixed-term contract on hourly wages is -7.4% for low-educated male employees with no migration background and -3.7% for female employees with similar characteristics. Looking at level of education, we see that wage differentials between permanent and flexible employment increase with level of education, most notably for temporary agency workers. Finally, while the share of flexible workers has increased substantially over the past decades, we find no evidence of a time trend in the wage differentials. The differentials are persistent, but not increasing or decreasing over time.

## Puzzle

It remains a puzzle why wage differentials between flexible and permanent employment can be so persistent. A potential explanation is that there is unobserved heterogeneity between employees with a flexible and a permanent (Picchio, 2006; Rosen, 1986). For example, employers might offer a permanent contract and higher wages to the most productive employees only. We control for selection on observed characteristics, however our database does not provide information on productivity. Alternatively, the wage differential between flexible and permanent employment may reflect poor bargaining power (Albanese & Gallo, 2020; van der Wiel, 2010). Employees with a flexible contract are most-often not a member of a trade union. Moreover, they might put less effort in bargaining higher wages, because they prefer a contract extension. Finally, flexible jobs may have non-wage amenities, such as flexible hours (Sullivan & To, 2020). Examining the drivers of the unexplained wage differential between flexible and permanent employment further remain a topic for future research. ■

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