



## Supplementary indicators for estimating labour underutilization

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*The best known and most frequently cited measure for indicating the underutilized labour capacity is the unemployment rate. Yet, Statistics Netherlands (CBS) has also examined supplementary indicators in order to present a more comprehensive picture of the full potential of the labour capacity. Next to the unemployed, who are seeking a job and are immediately available, there are also jobless people who are seeking but are not immediately available to work. The opposite can also be true; people who have not looked for work recently, yet who are directly available for work. Moreover, there is a group of involuntary part-time workers, who want to work more hours. In this paper, these additional indicators for indicating a broader view of the total underutilized labour supply in the Netherlands are presented as a percentage of total labour supply, and an international comparison is made to examine how these vary over countries.*

### 1. Introduction

The primary measure for quantifying the underutilization of labour supply is the unemployment rate. Yet, in addition to the unemployment rate also supplementary indicators of labour underutilization can be calculated. When compared to the unemployment rate, the additional indicators present a broader view, for example by also taking into account discouraged jobseekers and underemployed part-time workers. Following the US Bureau of Labour Statistics (BLS), in this paper Statistics Netherlands aims to draw a more comprehensive picture of the supply side of the labour market by making use of these supplementary indicators.

The unemployment rate denotes the number of unemployed as a percentage of the total labour force. The labour force is the sum of all employed and unemployed people from 15 to 75 years old. Statistics Netherlands follows the International Labour Organization (ILO) definition of the employed and the unemployed labour force, indicating that someone is considered employed if he or she has paid work, regardless of the number of hours per week. An unemployed person has no paid job, yet is immediately available for work and has been seeking during the last four weeks.

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<sup>1</sup> Translation from: Bierings, H. (2016) Onderbenutting van arbeid: aanvullende indicatoren. Tijdschrift voor Arbeidsvraagstukken 216 (32) 4. pp 413-420.

In this paper the unemployment rate serves as the basis for deriving four other indicators of labour underutilization. Starting from the group unemployed, the four additional indicators cumulate into an increasingly broader interpretation of the underutilized labour supply. In the first summation we neglect the criterion for searching a job in the standard unemployment definition, and add the group of discouraged jobseekers. They do not search (anymore) because they do not expect a positive result. In the second summation persons are added who have also stopped seeking for a job, however for another reason than discouragement. In the third summation the availability criterion in the standard unemployment definition is omitted. The final summation builds on the latter one by adding part-timers (i.e. those working less than 35 hours a week in their main job) who actually would like to work more hours, and for which they are immediately available.

Moreover, this paper also examines developments over time regarding the five indicators of underutilized labour. In the second part of the paper the five indicators are converted into three main indicators to allow for cross-country comparisons between different EU member states. With respect to the unemployment rate, the Netherlands scored an 11<sup>th</sup> position within the EU in 2015. The analyses will provide insights into the question whether this position changes when for example the number of discouraged jobseekers are added. But for example also to what extent the, in international perspective, high share of part-time workers in the Netherlands is involuntary. In short, by comparing developments over time and looking at the Dutch situation from a EU perspective, we aim to present a more comprehensive picture of the level of labour underutilization in the Netherlands. The international comparison is based on the EU 15 (position 1995) for the sake of clarity. The data source utilized is the Labour Force Survey (LFS), in the Netherlands also known as the Enquête Beroepsbevolking (EBB).

## **2. Five indicators for labour underutilization**

Regarding all separate indicators we follow those reported by the US Bureau of Labor Statistics (BLS, 2016).<sup>2</sup> These indicators are ordered from the most restrictive I1 - the official unemployment - to the broadest interpretation, termed I5. Indicators I1 to I5 correspond to the breakdown of labour underutilization as described previously. All indicators ranging from I1 to I5 are

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<sup>2</sup> BLS also identifies two additional indicators, however these are neglected in this paper. These two indicators are: 1) unemployed persons who are without a job for 15 weeks or more, and 2) persons who have lost their job or whose temporary contract has expired.

calculated as percentages. Starting from solely the unemployed (I1), with each ascending indicator from I2 to I5, every time a different group is added cumulatively to the numerator. The same is done concerning the denominator, and hence total labour supply also increases with every step. Thus, each indicator presents a specific view of the underutilized labour supply as a percentage of the total labour supply.

The first indicator for quantifying labour underutilization (I1) is represented by the unemployment rate. In the Netherlands 614 thousand people were unemployed in 2015. As a percentage of total labour supply (i.e. labour force) of over 8.9 million this resembles an unemployment rate of 6.9 per cent. In the broadest view of estimating underutilization (I5) this was 16.8 per cent, which means a difference of nearly ten percentage points.

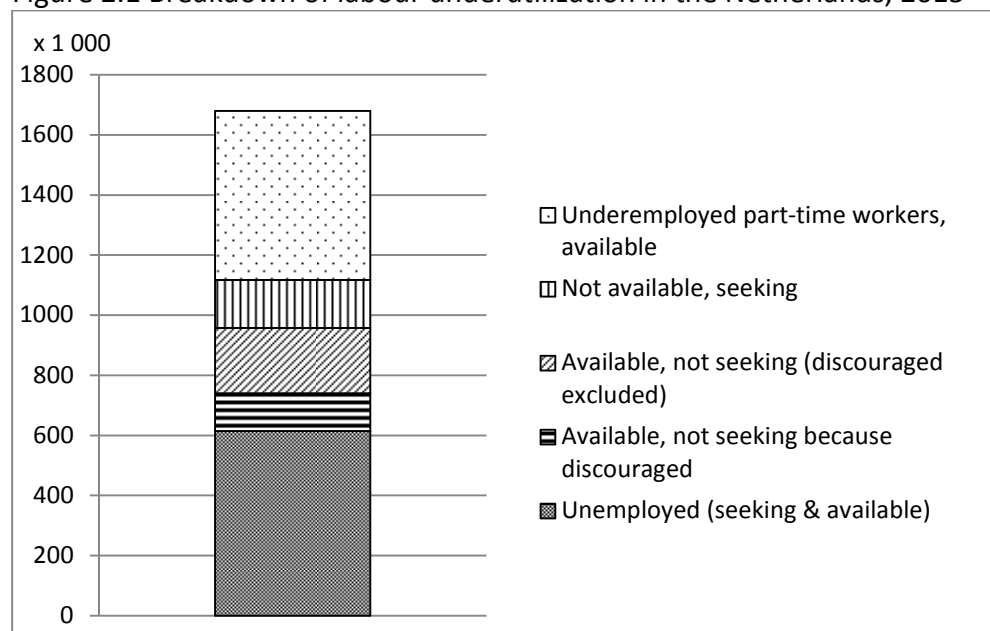
I2 resembles I1, yet adds the group of discouraged jobseekers to both the numerator and denominator. These discouraged persons are immediately available for work, but are not actively searching employment (anymore) because they do not expect to be successful in finding a job. In 2015 this group consisted of 126 thousand individuals. A relatively large proportion of these discouraged consider themselves as unemployed, even though they do not meet all unemployment criteria (Souren, 2016). I2 is based on a broader definition of labour underutilization than I1, because it recognizes discouraged workers, next to unemployed individuals, as labour underutilization, and total labour supply is seen as the total number of employed, unemployed and discouraged jobseekers. Because of this addition, labour underutilization as measured by I2 is 1.3 percentage points higher than by I1.

I3 corresponds to I2 but in addition takes into account individuals who have not searched for employment during the last four weeks, for another reason than expecting no result from the search process. 'Other' reasons for not seeking include for example caring, education, advanced age or illness. Although they do not seek employment, these people could start working within two weeks. In 2015 this group consisted of 218 thousand people. Because of this addition, the share of underutilization represented by I3 is 2.2 percentage points higher than by I2.

Although I4 is largely aligned with I3, it also takes into account people who are not immediately available for work, yet still have recently searched for a job. This group is included in both the numerator and the denominator. In 2015 nearly 160 thousand individuals belonged to this group in the Netherlands. This group includes for example students who still have to complete their study, but are already looking for a job opportunities. The same holds for people who are ill or disabled and those taking care of children or other family members. Adding this particular group, results in a 1.5 per cent points increase of the labour underutilization indicator when compared to the situation in I3.

I5 resembles I4, yet adds a group of involuntary part-timers to both the numerator and the denominator. Involuntary part-timers are people who work part time in their main job (working week of less than 35 hours), but actually would like to work more hours, and are immediately available. This is the largest group in numbers 563 thousand people and also results in an increase of 5 percentage points compared to I4. This indicator introduces 'lost working time' as a dimension of underutilization. All previous indicators are based on several variants of a combination of the criteria searching for work and being available on the short term. The indicators focus on measuring the labour potential measured as number of people, rather than the size of the labour underutilization in terms of working hours.

Figure 2.1 Breakdown of labour underutilization in the Netherlands, 2015



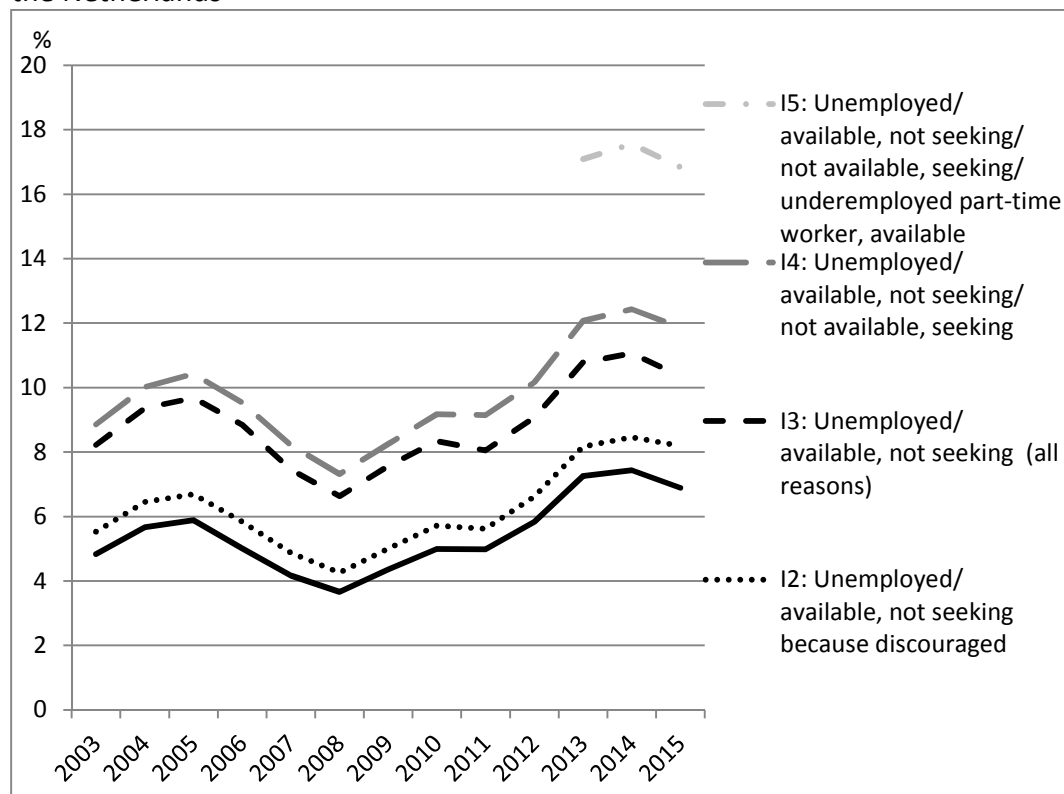
### 3. Developments over time

All five indicators indicating the labour underutilization show a very similar pattern over time and follow the business cycle. Thus, in view of changes over time, none of the alternative indicators for measuring labour underutilization (I2-I5) shows a divergent picture than indicated by the official unemployment rate. From 2003 to 2005, labour underutilization measured as a percentage of full labour potential (all indicators) increased. Subsequently, underutilization figures declined for several years, to increase again after the start of the

financial and economic crisis in 2008. After reaching its highest point in 2014, a decline in 2015 can be noticed.

On top of the link with the business cycle, two component indicators of labour underutilization exhibit (the beginning of) a somewhat more structural development, i.e. an stronger increase of discouraged workers (I2-I1) since 2012 and an increase of the group 'has searched for work, but not immediately available' (I4-I3) since 2010. The respective contributions increased from 0.6 percentage points in 2011 to 1.3 percentage points in 2015 for I2-I1, and from 0.7 percentage points in 2009 to 1.5 percentage points in 2015 for I4-I3. With respect to the increasing level of labour underutilization, the increase in discouraged workers seems understandable: the more people enter the labour market without being successful in finding a job, the more people will in turn withdraw because they feel discouraged. An explanation for the increase in the number of people who are not available, seems less unambiguous.

Figure 3.1 Development of indicators for estimating labour underutilization in the Netherlands

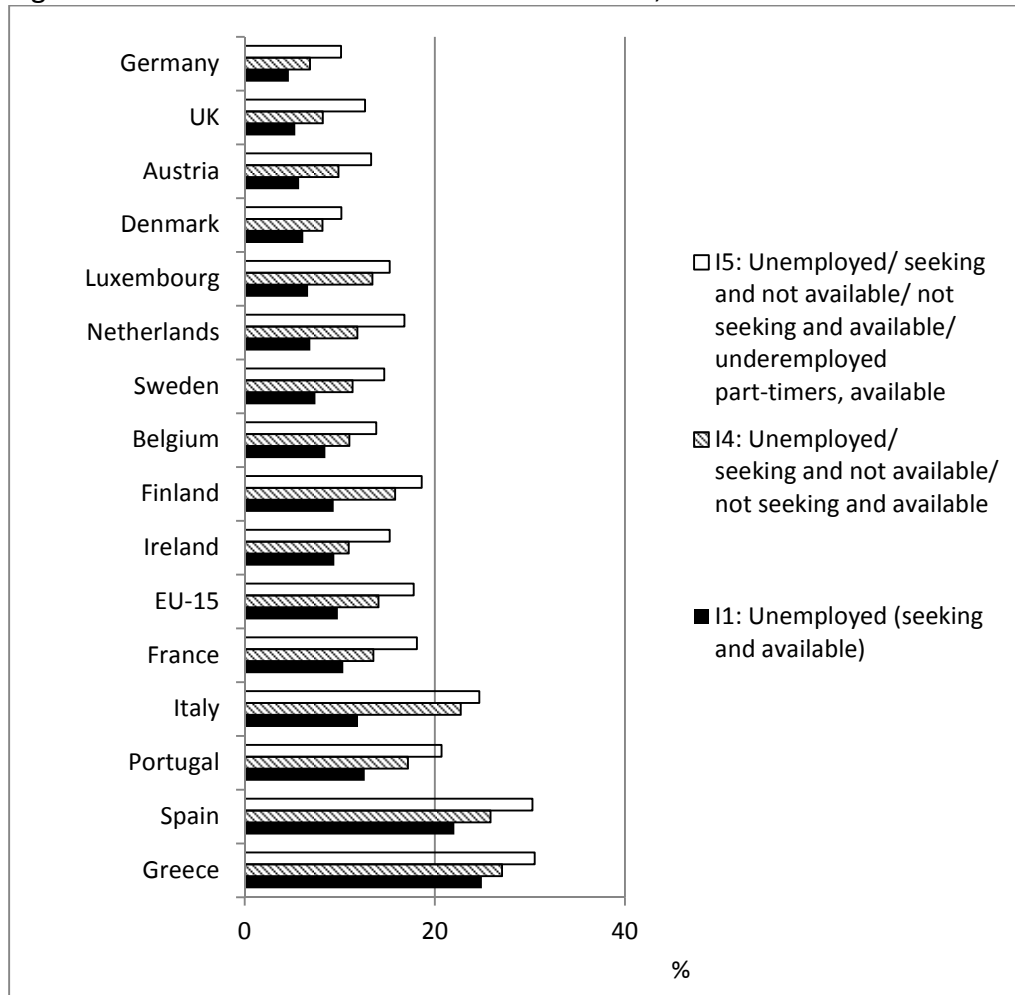


#### **4. A cross-country comparison**

Indicators I1, I4 and I5 are utilized for comparing the national level of labour underutilization across EU-15 member states. In I4 two groups are added: those who (a) look for work but are not available, and those who (b) are not looking for work, yet are immediately available. Together, both groups are what Eurostat (2016) classifies as the potential additional labour force. Moreover, I5 is generally referred to as underemployment.

From figure 3 it can be derived that the Netherlands, closely followed by Luxembourg, shows the largest increase in the level of underutilization with ascending order of the three respective indicators, ranging from the most restrictive to the broadest definition (I1, I4 to I5). For the Netherlands this share more than doubles (factor 2.4). For comparison; the indicator for the EU-15 average increases by a factor of 1.8 (from 9.8 to 17.8 per cent). Nearly half of the increase in the Netherlands can be attributed to the group of jobless people, who meet solely the availability criterion or the search criterion. The other half is accounted for by underemployed part-time workers. Likewise, Austria and the United Kingdom show a similar large increase from I1 to I5, at short distance followed by Germany and Italy.

Figure 4.1 Indicators labour underutilization in EU, 2015



Source: Eurostat

Figure 3 is sorted in ascending order of the unemployment rate (I1). Given that the transition from I1 to I5 varies by country, also a country's ranking on one of the other indicators for labour underutilization may change depending whether one chooses alternatively for I4 or I5. Based on a ranking on I5, instead of I1, the Netherlands and Luxembourg 'drop' most places in the ranking, namely three. Germany remains the number one in all three examples, ranging from 4.6 per cent in I1 to 10.1 per cent in I5. On the contrary, Greece and Spain position the last and the penultimate place using all three indicators. For both Greece and Spain I5 is very high (approximately 30 per cent), well above the EU-average of almost 18 per cent. The respective contribution of I4-I1 and I5-I4 in these countries is limited. The high score of I5 is largely due to the high level of unemployment (I1) which in itself is higher than the I5 in other countries. Ireland

risks three places in the ranking (from I1 to I4, even no less than five places). In Ireland this is due to the relatively small group of people meeting only the availability criterion or alternatively meeting only the search criterion. Concerning the other EU-15 countries Denmark and Finland move up two places, the rest one place.

Table 4.1 Cross-country comparison EU-15 member states concerning three indicators (I1, I4 en I5) of labour underutilization (ascending order), 2015

	I1	I4	I5
1	Germany	Germany	Germany
2	UK	Denmark	Denmark
3	Austria	UK	UK
4	Denmark	Austria	Austria
5	Luxembourg	Ireland	Belgium
6	Netherlands	Belgium	Sweden
7	Sweden	Sweden	Ireland
8	Belgium	Netherlands	Luxembourg
9	Finland	Luxembourg	Netherlands
10	Ireland	France	France
11	France	Finland	Finland
12	Italy	Portugal	Portugal
13	Portugal	Italy	Italy
14	Spain	Spain	Spain
15	Greece	Greece	Greece

Note:

I1: Unemployed (seeking and available)

I4: Unemployed/ seeking and not available/ not seeking and available

I5: Unemployed/ seeking and not available/ not seeking and available/ underemployed part-timers, available



## **5. Conclusion**

Supplementing the unemployment measure (I1) with indicators I2 to I5 yields a more comprehensive picture of labour utilization for the Netherlands. Regarding developments over time, the different indicators present a similar picture. Thus, concerning the business cycle the added value of the supplementary indicators is limited for the Netherlands. Like unemployment, the alternative indicators follow the business cycle. However, the supplementary indicators show some differences in trends over time. In times of recession the indicators that include the discouraged jobseekers and those who are not immediately available, show a relatively strong trend. In international perspective it appears that the Netherlands shows the largest increase from I1 to I5 of all 15 EU member states. This means that in the Netherlands the groups as expressed by I4 and I5 are relatively large in European perspective. This concerns those not immediately available for work, yet seeking for work, and those working involuntary part time.

## References

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