

Relationship between the reservation wage of the unemployed and the last received hourly wage.

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Introduction

The topic of the reservation wage of the unemployed has a long history of global discussion and analyses²³. The reservation wage is the lowest wage rate at which a worker (in this article this is the unemployed person) would be willing to accept a particular type of job.

A casus: a teacher who worked for 5 years earning a wage rate of approximately 15 gross Antillean guilders per hour becomes unemployed. After a period of time he is offered another teaching job for 10 guilders per hour. The teacher most probably will not accept the job, because it would mean a great reduction in the hourly wage that he earned before. This last choice is based on his reservation wage.

In 2006, the Central Bank performed a research on the topic of the reservation wage for the labor market of Curaçao, in which the authors²⁴ had as hypothesis that the reservation wage of unemployed person in Curaçao determines whether he will accept or reject work. The authors came to the conclusion that the reservation wage, particularly of the group of unemployed who receive social benefits, apparently is not the main factor preventing them from accepting work, but rather the benefits accompanying being unemployed such as, subsidy for house rent, school uniforms etc.

International research has shown that there exists a causal relationship between the reservation wage of the unemployed and their last received hourly wage. A lot of research has been done on particularly the relationship between the reservation wage of the unemployed and the last received hourly wage.

A leading research on this topic is that of the German Research group in 2006. Their hypothesis focused on answering the question whether a progressive minimum wage policy has effect on the reservation wage of the unemployed and if this relationship is the cause of a high unemployment rate.

They came to the conclusion that a rise in the minimum wage will have an effect on the level of the reservation wage of the unemployed, because it triggers rising expectations. If the level of the minimum wage should be diminished, the unemployed person will maintain a reservation wage equal to the first received (higher) minimum wage²⁵.

This article aims to contribute to the discussion regarding the relationship between the reservation wage of the unemployed of Curaçao and their last received hourly wage, whether it is minimum wage or higher than minimum wage.

²³ Hogan, V.; "The determinants of the reservation wage". 1999
IMF Working paper; "What determines the reservation wages of unemployed workers?
New evidence from German Micro data". 2003
More additional readings.

²⁴ Miriela Carolina and Lenny Pau; "The Reservation Wage of the Unemployed job seekers in Curaçao".
2008

²⁵ Armin Falk, Ernst Fehr and Christian Zender (*The Quarterly Journal of economics* (2006) 121 (4): 1347-1381. doi:10.1093/qje/121.4.1347)

Methodology

Limitations of the data

For the purpose of this analysis, the two questions in the Labor Force Surveys²⁶ (LFS) of 2007 to 2011 that are under investigation are “What is your last received hourly wage?” and “What is the lowest wage for which you would accept employment”? This last question describes the reservation wage. The hypothesis in this article is that persons, who have worked for a certain salary in the past (be it equal to that of the minimum wage²⁷ or higher), tend to have a reservation wage equal to the last received hourly wage.

The analysis in this article gives an indication of any existing relationship on the labor market of Curacao. The analysis is not an explanatory one. It does not explain the underlying factors for found relationships.

However, it gives an indication where more and extensive research is necessary, in order to determine what is the cause and effect of any possible relationship between a minimum wage policy of Curacao and the reservation wage of the unemployed and consequently on the unemployment rate.

The analysis is performed on two subgroups of respondents, which are 1. the unemployed who (at the time of the survey) were employed for up to one year and 2. those who were unemployed for more than one year. By categorizing the respondents in these two groups, a possible effect of the variable ‘long term unemployed’ can be visible.

Subsequently, within these two subgroups, a relationship is established between those who received minimum wage in the past and their present reservation wage and between those who received higher than minimum wage and their reservation wage.

It should be noted that due to the relatively small sample of the unemployed population in the sample (approximately 400 persons in the sample), the last received hourly wages and the reservation wages are presented as ‘wage brackets’ instead of exact amount. The exact minimum hourly wage lies therefore within the corresponding wage bracket (which are 0-9 gross Antillean guilders per hour) (see Annex).

The graphs in the article are the prime sources from which the conclusions will be drawn, by looking at the distance between the two lines presented in the graphs.

Reservation wage versus last received hourly wage

Unemployed for one year or less

The majority of the unemployed population that has been unemployed for up to one year received a minimum hourly wage. It is noticeable that each year (except for 2008) this percentage is less, and the share of unemployed that formerly worked for a wage higher than the minimum wage has increased. This indicates that more and more persons with relatively high hourly wages are becoming unemployed.

²⁶ The Labor Force Survey is a survey that the Central Bureau of Statistics conducts on a regular basis to measure the latest developments on the labor market.

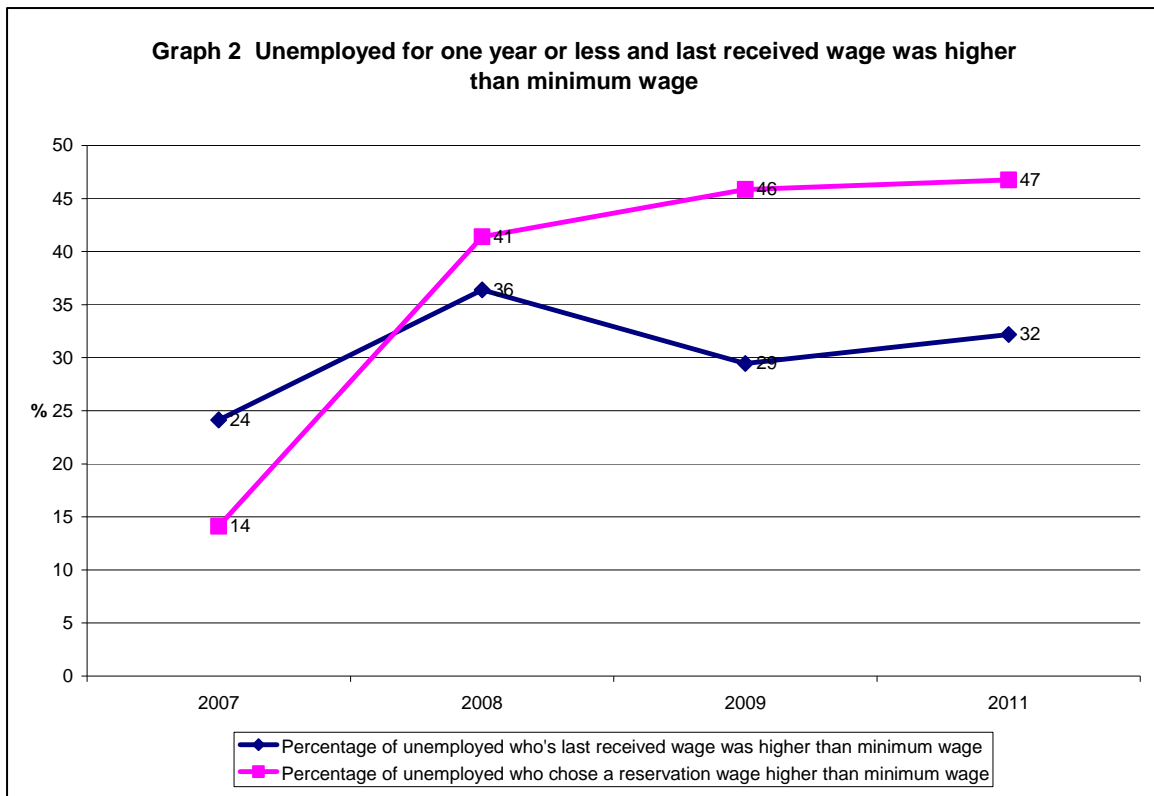
²⁷ In Curaçao all employees are entitled to a minimum wage. This is established in an Ordinance by law. Each year the wages are indexed based on the last consumer price index. The last hourly minimum wage is that of January 2013; 7.93 guilders per hour (see Annex).

| Table 1 Hourly wage and reservation wage of persons unemployed for one year or less, (Gross Antillean guilders) | | | | |
|---|-------------|-------------|-------------|-------------|
| Last received hourly wage (Gross Antillean guilders) | | | | |
| ANG | 2007 | 2008 | 2009 | 2011 |
| 0-9 | 2693 (76%) | 2907 (83%) | 2477 (71%) | 2703 (68%) |
| 10 plus | 856 (24%) | 583 (17%) | 1034 (29%) | 1282 (32%) |
| Total | 3548 (100%) | 3490 (100%) | 3511 (100%) | 3984 (100%) |
| Reservation wage (Gross Antillean guilders) | | | | |
| ANG | 2007 | 2008 | 2009 | 2011 |
| 0-9 | 3047 (86%) | 2016 (58%) | 1901 (54%) | 2121 (53%) |
| 10 plus | 501 (14%) | 1473 (42%) | 1610 (46%) | 1863 (47%) |
| Total | 3548 (100%) | 3488 (100%) | 3511 (100%) | 3984 (100%) |

Chi test=0,000 at the 0.99 level and 1 degree of freedom renders a $p>0.01$
Meaning the chance that the reservation wage being a logical consequence of the last hourly wage is due to coincidence is 0.01. So, people tend to chose their reservation wage based on their last hourly wage.

The share of the unemployed that chooses a reservation wage similar to the minimum wage appears to be decreasing. (see table 1 and graphs 1 and 2). The share that formerly received an hourly wage higher than the minimum wage also more and more tend to choose a reservation wage higher than their former wage. It appears therefore that more and more unemployed tend to choose a reservation wage higher than the last received hourly wage, including those who received minimum wage (see table 1 and graphs 1 and 2).





Summary and conclusion of graph 1 and 2: for the unemployed that have been out of work for one year or less, the distance between the last received hourly wage and the reservation wage, appears to be widening. This is especially true for the category whose former hourly wage was higher than minimum wage (graph 2).

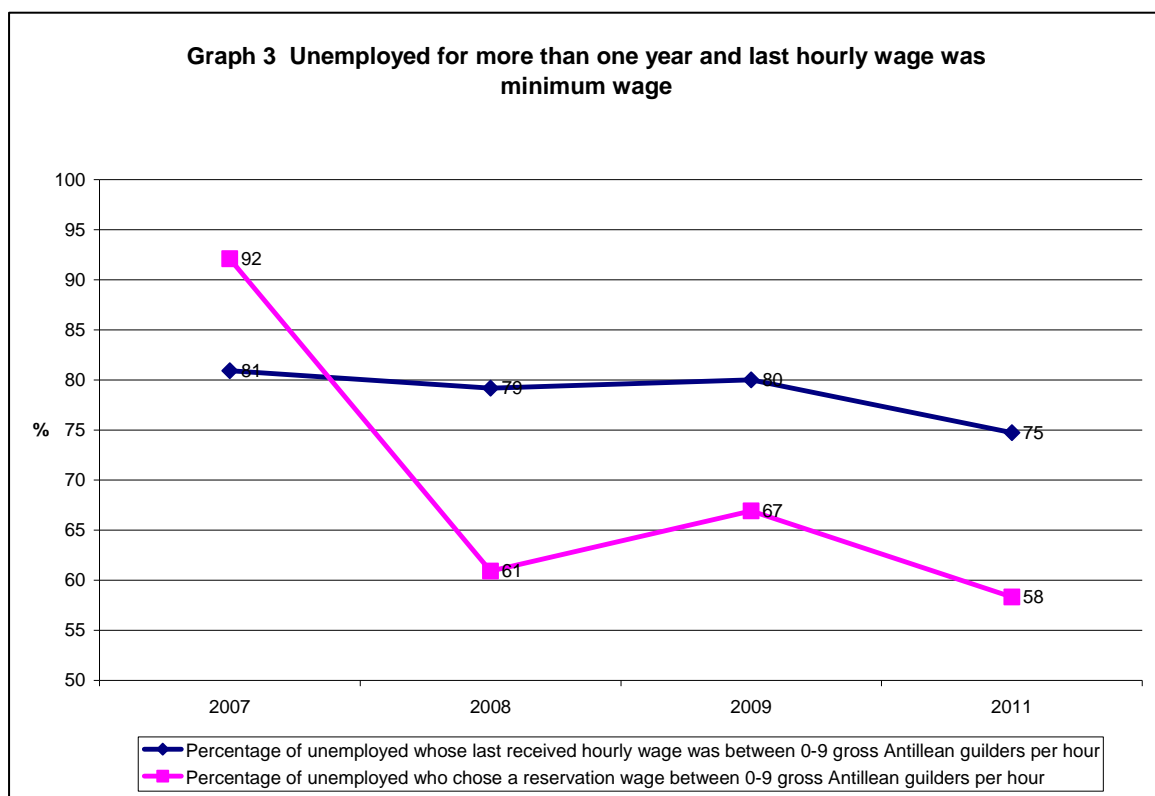
Thus, more and extensive research needs to be done on the reasons why persons who have been unemployed for a relatively short time tend to choose a relatively high reservation wage, even higher than the formerly received minimum wage.

Unemployed for more than one year

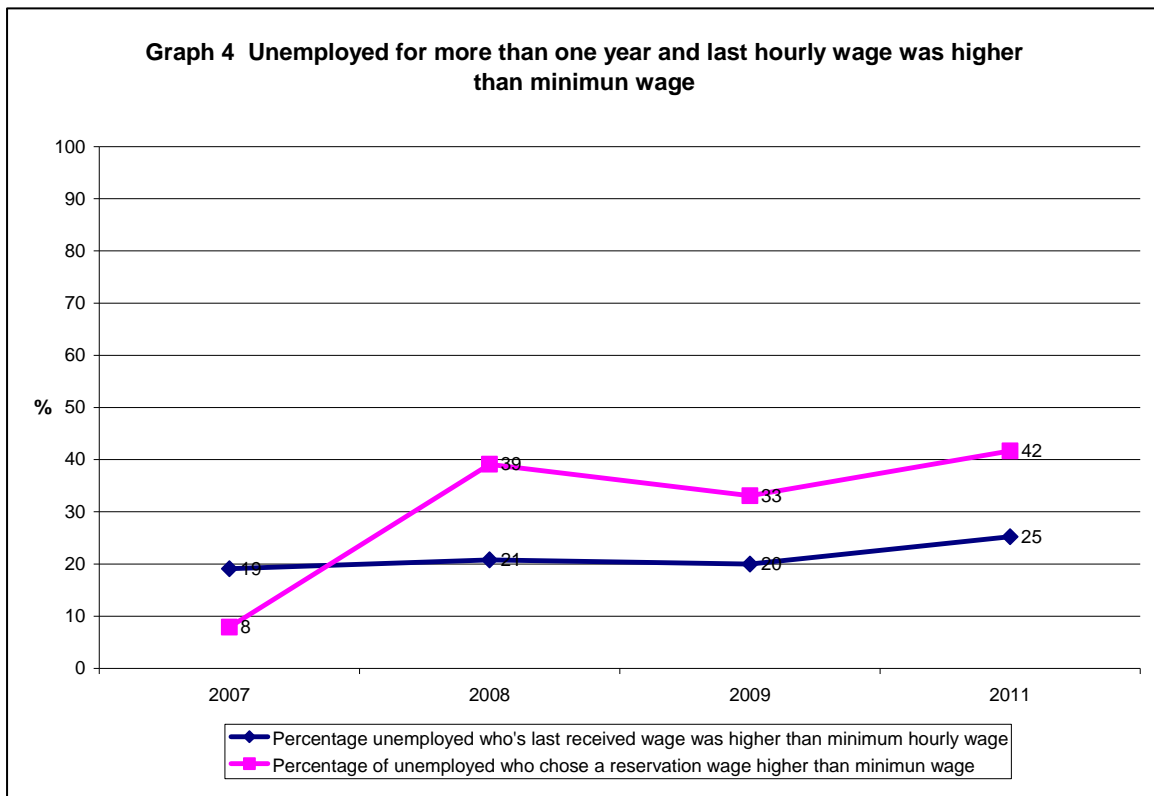
The same analysis as for the subgroup unemployed for one year or less, has been performed on the subgroup unemployed for more than one year. The results show that, similar to situation in the first group, the majority of persons in the sample received a salary in their former job, equal to or bordering minimum wage (see table 2).

| Table 2 Unemployed for more than one year, (Gross Antillean guilders) | | | | |
|--|-------------|-------------|-------------|-------------|
| Last received hourly wage (Gross Antillean guilders) | | | | |
| ANG | 2007 | 2008 | 2009 | 2011 |
| 0-9 | 3359 (81%) | 1988 (79%) | 1917 (80%) | 1762 (75%) |
| 10 plus | 792 (19%) | 522 (21%) | 479 (20%) | 595 (25%) |
| Total | 4151 (100%) | 2510 (100%) | 2395 (100%) | 2357 (100%) |
| Reservation wage (Gross Antillean guilders) | | | | |
| ANG | 2007 | 2008 | 2009 | 2011 |
| 0-9 | 3823 (92%) | 1529 (61%) | 1603 (67%) | 1375 (58%) |
| 10 plus | 328 (18%) | 982 (39%) | 792 (33%) | 982 (42%) |
| Total | 4151(100%) | 2510 (100%) | 2395(100%) | 2357 (100%) |
| Chi test=0.00 which renders a p>0.01. Thus the chance of the reservation wage being a logical consequence of the last hourly wage is due to coincidence is less than 0.01. So, people tend to chose their reservation wage based on their last hourly wage | | | | |

Except in 2007, each year a lower share of unemployed had a reservation wage that was equal to or bordering minimum wage. The share that had a higher reservation wage was relatively high. Ironically this is especially visible at the group that earned a former hourly wage that was equal to or bordering minimum wage. (see graphs 3 and 4)



The distance between the two lines in graph 3 is much wider than the distance between the lines in graph 4. This is an indication that in spite of being unemployed for more than one year in general a larger share still tend to have a reservation wage higher than the minimum wage (which was the formerly received wage).



Summary and conclusion of graphs 3 and 4: of the group of unemployed who were without work for more than one year, a relatively high share tends to choose a reservation wage higher than the minimum wage. Also here further research is justified to determine why persons, who are unemployed for a relatively long time, still tend to maintain a reservation wage equal to or higher than the minimum wage.

Conclusion

This article has the aim to, in the light of international research and also research performed locally on the topic of the reservation wage, to encourage more and deeper research on this topic for the labor market of Curacao.

Applying the 'minimum wage/reservation wage' link developed by the German research group in 2006, this article set out to draw conclusions regarding a possible relationship between formerly received hourly wage of the unemployed and their reservation wage for the labor market of Curaçao.

In accordance with the results of the model of the German research group, there appears to be a strong relationship between formerly received hourly wage of the unemployed and the reservation wage on the labor market of Curaçao, based on the results of the LFS. Persons tend to maintain their formerly received wage as their reservation wage, which in the majority of cases was the minimum hourly wage, even though they have been unemployed for a long period of time.

ANNEX

| Development of the hourly minimum wages Curaçao | |
|--|----------------------------|
| | Hourly minimum wage |
| January 2004 | 5.77 |
| January 2006 | 5.98 |
| January 2007 | 6.14 |
| January 2008 | 6.35 |
| September 2008 | 7.30 |
| January 2009 | 7.30 |
| January 2010 | 7.30 |
| January 2011 | 7.53 |
| January 2012 | 7.68 |
| January 2013 | 7.93 |