# Supply and demand for specialized labor on the labor market of Curação

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### Introduction

Since 2002 the unemployment rate of Curação has been declining. The rate of 2011 was 9,8 percent; more than 5 percentage points less than in 2002.

Despite this decline of the number of unemployed persons, the Labor Force Surveys (LFS) show that two types of specialization<sup>22</sup>, which a number of unemployed persons have acquired, contribute to a mismatch between supply and demand. These types of specialization are the economic-administrative and the technical vocational education

This article aims to contribute (with figures) to the discussions regarding the match, or mismatch, between supply and demand on the local labor market; particularly where the aforementioned types of 'specialized labor' are concerned.

The first paragraph will describe the methodology used for the analyses.

The second paragraph will give a short overview of the dynamics of supply and demand on the local labor market, based, among others, on studies done by the 'Kennis Centrum voor Beroeps Onderwijs en Bedrijfsleven' (KBB). It will describe the dynamics between on the one hand the demand of labor issued by the labor market and on the other hand the supply offered by the educational system.

The third and fourth paragraphs will show the statistical results of the analyses done with regard to the actual supply of and demand for specialized labor on the local labor market. The third paragraph will focus on the statistics that show the magnitude and the type of demand and the fourth paragraph will focus on the same for the supply of labor.

*Last but not least, the fifth paragraph will conclude with some relevant recommendations.* 

## Methodology

The data for the analyses is drawn from different sources, which are first of all the Labor Force Surveys (LFS) and secondly the Job vacancy Survey of 2006, both from the Central Bureau of Statistics (CBS). Thirdly, administrative data is used from the Department of Labor and Social Affairs of Curaçao, which includes the former "Dienst Werk en Inkomen" (DWI).

The database of DWI contains a relatively large share of the enterprises on the labor market, particularly of those in the field of 'service work', 'clerk work' and 'construction'. Based on this fact, it is safe to assume that the number of new vacancies on the labor market, particularly in the above mentioned field of work, can be estimated with a certain degree of reliability.

<sup>&</sup>lt;sup>22</sup> these are the types of vocational education, classified according to ISCED 1997

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The three sources complement each together; for example data of the LFS complements the lack of data since the last held Job Vacancy Survey of 2006. Data of the administrative records of DWI also complements data of the Job Vacancy Survey with regard to job vacancies after 2006.

This explains why all three sources are used in this article to estimate developments of supply and demand on the labor market since 2006.

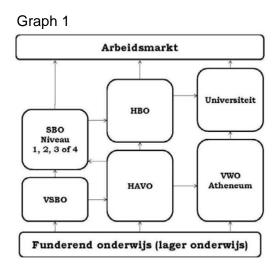
To make the data comparable, persons employed in the Public sector are excluded from the Labor Force Surveys.

## Theoretical background

Studies done by the KBB show that government policy of recent years has focused on the issue of the mismatch between supply and demand of labor on the labor market, for instance in the fields of hospitality and construction. The website of the Kennis Centrum voor Beroeps Onderwijs en Bedrijfsleven gives an overview of documentations regarding policy to meet the demand of labor and to accommodate economic development<sup>23</sup>.

In this regard, the dynamics between the demand of adequate labor on the labor market and the output of the educational system is important. In short, the educational output of Curaçao is meant to supply the labor market and the economy. This output comes from different educational systems (see graph 1, designed by the KBB).

At each level, the supply of specialized labor from the different educational levels, feeds into the labor market to meet existing demands.



<u>Translation</u>: Arbeidsmarkt=Labor market, SBO Niveau 1,2,3,4=Secondary education second stage, VSBO=Secondary education first stage, HBO=Secondary education second level, HAVO/VWO Atheneum=Secondary education second stage, Universiteit=Academic level

<sup>23</sup> http://www.kbbcuracao.com/

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## Demand for specialized labor

According to figures of the last Job Vacancy Survey of the CBS in 2006, the number of vacancies on the labor market of Curação (950) has grown with approximately 60 vacancies, compared to 1998 (889 vacancies; see table 1).

Table 1: Job vacancies by type of vocational education									
	1998		2006						
	Absolute	%	Absolute	%					
General education	333	37	245	26					
Technical training	224	25	275	29					
Economic- and administrative specializations	170	19	253	27					
General- and personal care	162	18	177	18					
Total	889	100	950	100					
Source: CBS Job Vacancy Survey 2006									

In 2006 there was a higher demand for persons with a vocational education compared to 1998 (from 63% to 74%). The demand for persons with a general education such as secondary education (MAVO, HAVO) or primary education decreased with 11 percentage points (from 37% to 26%).

The demand for persons specialized in the field of economy and administration shows an increase; from 19 percent in 1998 to 27 percent in 2006. The demand for persons with technical training has increased with 4 percentage points in the same period. Vacancies for persons specialized in the field of general- and personal care (such as nurses, elderly care givers etc., but also beauticians, barbers etc.) has remained the same in 2006, compared to 1998.

As mentioned earlier, the last job vacancy survey of the CBS was held in 2006. There is little known about how this demand has developed on the labor market since 2006.

From other data sources there is an indication that the number of new placements on the labor market may have increased since 2006, signifying that there is a demand.

One such data source is the administrative database of Dienst Werk en Inkomen. The absolute number of new job vacancies declined from 817 in 2006 to 591 in 2010, which is more than a quart (see table 2).

Table 2: Number of new registrations, job vacancies and job placements							
	2002	2003	2004	2005			
New registrations	1896	2606	2685	2442			
New job vacancies	911	1038	751	776			
New Job placements	424	473	345	354			
					2010		
	2006	2007	2008	2009	24		
New registrations	2162	1658	1865	1551	1383		
New job vacancies	817	633	718	613	591		
New job placements	291	290	180	266	226		
	2002	2003	2004	2005			
Ratio job placement/registered unemployed (per 1000)	224	182	128	145			
	2006	2007	2008	2009	2010		
Ratio job placement/registered unemployed (per 1000)	135	175	97	172	163		
Source: Dienst Werk en Inkomen							

<sup>&</sup>lt;sup>24</sup> The year 2010 includes partly estimations of the data, because the data was partly unavailable.

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However, table 2 also shows that, except for 2008, the ratio 'number of new job placements to the number of registered persons' has increased each year between 2006 and 2010; from 135 in 2006 to 163 in 2010. Of the 1000 newly registered persons in 2006, 135 were able to be placed in a job. By 2010, this number has increased to 163.

Consequently, this is an indication that there must be an increased demand of labor on the labor market and that this demand is being met. Thus, the observed decline in the absolute numbers of new job vacancies in the database between 2006 and 2010, in combination with the decrease in the ratio is an indication that the demand for labor is being met. However, the table does not give more information regarding the type of demand.

The following data source, the LFS, can give more insight into the development of the type of demand.

Table 3: Population 15 years and older by type of specialization (excl. not reported)								
2006	Unemployed	Employed 25	Economically not active	Total Population	Share of the population			
General education	3335	18055	22776	44166	44			
Technical training Economic and admini-	2028	12402	3843	18273	18			
strative training	1033	6873	1110	9016	9			
General personal care	2104	8040	4055	14199	14			
Attending school	393	1184	12218	13795	14			
Total	8893	46554	44002	99449	100			
2011	Unemployed	Employed 26	Economically not active	Total Population	Share of the population			
General education	2033	19445	23612	45090	40			
Technical training Economic and admini-	1513	13234	5454	20201	18			
strative training	1029	10797	2139	13965	13			
General personal care	1282	9623	5598	16503	15			
Attending school	706	2105	12785	15596	14			
Total	6563	55204	49588	111355	100			

Table 3 shows that the number of employed persons has increased between 2006 and 2011. The share with an economic- and administrative background has increased by 4.7 percentage points in this period. But in the total population this same share has increased by 'only' 4 percentage points. This implies that there is a demand for persons with an economic- administrative background on the labor market.

The share of employed persons with a technical training remained almost unchanged between (0.25 percentage points), which is comparable to the development in the total population. In the total population the percentage of persons with a technical training remained unchanged between 2006 and 2011.

From the above one could conclude that the demand for persons with a technical training on the labor market has not decreased. There is a stagnation in the shares. A stagnation indicates that there are relatively just as many persons with technical skills, entering the work force as there are leaving the work force. Thus one can conclude that up to 2011 there was a demand for persons with a technical training.

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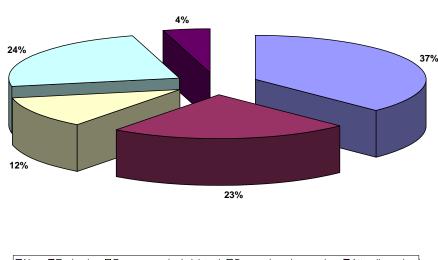
<sup>&</sup>lt;sup>25</sup> Excluding Public administration

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## Supply of specialized labor

Graphs 2 and 3 are visual representations of the results of the LFS of 2006 and 2011. In 2010 the CBS did not conduct an LFS, therefore the data of 2011 is used.

The 2 graphs represent the division of the type of vocational education of the <u>unemployed</u> population, which is the supply of labor.



Graph 2: Unemployed population by type of vocational education 2006

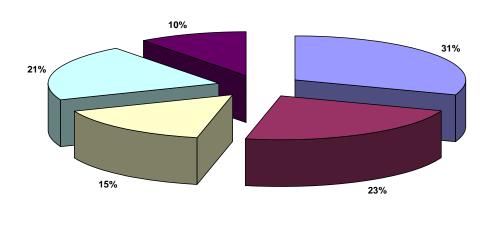
■ None ■ Technology □ Economy and administratio □ Personal- and general car ■ Attending school

Graph 2 and shows that in 2006, thirty-seven percent of the unemployed population has followed only general education with no additional vocational training. As mentioned before, general education entails for example primary and secondary school.

23 Percent of the unemployed population has a technical vocational training, whether at the lower level (such as LTS), the mid level (such as MTS) or at the higher level (such as HTS and TH).

Almost a quart (24 %) has an education in health or personal care, which includes for example nursing, elderly care and other types of care in the health sector. It also includes beauticians, barbers, hand- and foot therapists etc.

There are comparatively few unemployed persons with an education in economics or administration; the share is only 12 percent (see graph 2).



Graph 3: Unemployed population by type of vocational

■ None ■ Technology ■ Economy and administratio Personal- and general car Attending school

In 2011 the percentage of the unemployed population that has a technical training has remained the same as in 2006 (see graph 3). The share that is specialized in the field of health- and personal care has also remained almost unchanged compared to 2006.

Thus concerning the supply of persons with technical skills on the labor market, graphs 2 and 3 show that there were comparatively just as many persons leaving unemployment as that there were either finding employment or leaving the labor force all together (the share in the economically not-active population also increased between 2006 and 2011).

It seems therefore that there must have been a demand for technically skilled persons between 2006 and 2011 because, as is seen in the former paragraph, the percentage of <u>employed</u> persons with technical skills has not decreased. From unemployment figures there is also an indication that part of the (continuous) supply of labor with technical skills coming from educational systems, flows out of the labor force altogether and become economically not active.

There is an increase in the percentage of unemployed persons with an economic-administrative background in 2011; from 12 to 15 percent. The same development has taken place in the total population. Thus the increase in the share of unemployed persons with an economic and/or administrative education has partly to do with developments in the total population.

However, looking at the developments that were described for the <u>employed</u> population, there is reason to believe that there must have been a demand for persons with an economic and/or administrative vocational training, but that this demand may also have been met by persons not present on the local labor market.

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## **Summary and Conclusion**

This article set out to combine different statistical data sources to come to an analysis of the match or mismatch between demand and the supply of labor on the labor market. The period under investigation was the period between 2006 and 2011.

The sources that were used for the analyses were administrative data of the Dienst Werk en Inkomen (DWI), the Job Vacancy Survey of 2006 of the Central Bureau of Statistics (CBS) and the Labor Force Surveys (LFS) of the CBS. The data of the DWI and of the LFS were used as a proxy to estimate the actual developments on the labor market regarding the demand of specialized labor, so persons with a particular vocational education.

From the administrative data of (DWI), there is an indication that since the last held Job Vacancy Survey of the CBS in 2006, the number of job vacancies has increased on the labor market between 2006 and 2011.

The Job Vacancy Survey of 2006 shows that up to 2006 there is a demand for specialized labor on the labor market, more than for persons with a general education.

From the results of the LFS, there are indications that the shift in demand for more specialized labor, as was observed between 1998 and 2006, has continued after 2006. From employment and unemployment figures of the LFS it can also be deduced that up to 2011 there may still have been a growing demand for persons in the economic- and administrative educational field, based on the fact that the share of employed persons with these skills has increased.

Another development where supply and demand of labor is concerned is an apparent balance between supply and demand of persons with a technical education.

Besides the fact that there is a relatively large demand for persons with a technical education (plus minus 25 percent of all vacancies of 2006), there is reason to believe that there is also a comparatively large share (approximately 23 percent) that is unemployed. But there is a turn-over in this sub-population; meaning there are relatively just as many persons becoming unemployed, as there are who find work or leave the labor force altogether.

<u>Conclusion</u>; up to date labor market information, such as a renewed Job Vacancy Survey, is of utmost importance to substantiate that there are developments taking place on the local labor market. The developments point in the direction of a mismatch between supply and demand, particularly where it concerns a demand for technically skilled persons and persons with an economic and administrative vocational education. Analyses of data from different sources seem to indicate that on the one hand there is a demand for technically skilled persons on the labor market, while on the other hand technically skilled persons are abandoning the labor force altogether.

Secondly there is a demand for persons with an economic and administrative vocational education, but this demand is also being met by persons not on the local labor market.