The Reservation Wage of Unemployed Job Seekers in Curaçao

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Abstract

> The views expressed in this paper are those of the authors and do not necessarily represent those of the Bank van de Nederlandse Antillen.

This paper examines the level of and factors affecting the reservation wage in Curaçao. The analysis is based on data from our Reservation Wage Survey (RWS) and the Labor Force Survey (LFS 2006) from the Central Bureau of Statistics (CBS). The theoretical framework for the reservation wage is based on the job search model. We have used this model to find the determinants (economic resources, individual and household characteristics, and institutional factors) of the reservation wage. The results suggest that the reservation wage of unemployed persons is affected by their last monthly wage, their age group, education, and the sectors in which they are looking for employment. In some cases, the duration of unemployment, and a combination of the social security benefits and being head of the household also determine the reservation wage. In contrast to popular belief, we found no evidence of an unemployment trap; only a minority of the unemployed collects the complete package of social security benefits.

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I. Introduction

For the last three decades, Curaçao has suffered from double-digit unemployment rates. Since 1970, the unemployment rate has fluctuated from a high of 28.9% in 1987 to its lowest value of 11.9% in 2007. Curacao's high unemployment rate has been caused by a number of factors, including economic slowdown, lack of investments, inflexible labor laws, and the mismatch in the labor market.

It has long been argued that the social security benefits in Curaçao have caused people to remain unemployed: the so-called unemployment trap. The unemployment trap (OECD 1996)[2] is defined as "unemployment and related welfare benefits are high relative to expected net earnings, discouraging individuals from taking a job so that the unemployed have little incentive to search actively for a job." The social security benefits reduce the opportunity cost of unemployment resulting in higher reservation wages. The reservation wage is defined as the minimum acceptable wage for an individual to consider accepting a job.

In this study, we analyze only the reservation wage of unemployed individuals. A high reservation wage[3] can pose a disincentive for the unemployed to obtain employment. Employers are not inclined to pay more than the official minimum wage, while the unemployed are not willing to accept any job offer that pays less than the reservation wage. As a result, a reservation wage, which on average is higher than the minimum wage, will not reduce unemployment. Moreover, a high reservation wage can even increase the number of discouraged workers.

The main objective of this study is to find the level and the determinants of the reservation wage of unemployed individuals in Curaçao during the period 2006-2007. Our approach is to examine on the macro-level the relationship between the characteristics of the unemployed (labor supply) and the reservation wage. A second purpose of this study is to gain insight into whether the unemployment trap is a cause of the high unemployment rate. In particular, we examine whether the social security system has an influence on the reservation wage. In addition, we would like to examine the effects of the level of the reservation wage on unemployment. Understanding the factors that influence the reservation wage is important for both analytical and policy purposes. The findings of this research may shed some light on the main problem facing Curaçao's labor market – the high unemployment rate.

The paper is organized as follows. Section II gives an overview of unemployment, the social security system, and labor legislation in Curaçao. Section III provides a theoretical framework for the reservation wage and presents a job search model. Section IV describes the data used to estimate the reservation wage model, and Section V contains the empirical results. Section VI presents the conclusion and final remarks.

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[2] For more detailed information about unemployment and the poverty trap, see Appendix 1.
[3] The reservation wage is considered high when it is higher than the official minimum wage.

II.   Overview of unemployment, the social security system, and labor legislation in Curaçao

In this section, some basic information is presented on the general characteristics and labor market policies related to the unemployed in Curaçao. Curaçao's policies on social-economic and labor market issues are based on the framework of the labor market of the Netherlands. In the Netherlands[4] social and financial assistance is provided to the unemployed and the poor who are residents of this country. In addition, labor laws protect the employed workers. Curacao, as part of the Dutch Kingdom,[5] also provides social and financial assistance to the unemployed. However, the financial assistance is limited by the amount the government is able to pay. In the case of the Netherlands, the financial assistance is related to the so-called 'leefbaar inkomen,' an adequate income level[6] for a decent living. The financial assistance in Curaçao is not as extensive as in the Netherlands.

With the double-digit unemployment rate in Curacao, the government is faced with a serious problem. High unemployment places a burden on the government deficit, stimulates crime, encourages informal sector activities, and fuels migration. Furthermore, the country's output potential is severely affected. Thus, addressing the unemployment phenomenon should be one of the government's main priorities.

II.1   Unemployment

Curaçao has been suffering from a double-digit unemployment rate for years. According to the Labor Force Survey (Central Bureau of Statistics 2006), Curaçao's unemployment rate was higher among females (17.7%) than males (11.4%) in the year 2006. Moreover, the highest proportion of the unemployed (37.6%) was individuals between the ages of 15 to 24. Approximately 70% of the unemployed had a low education level,[7] and among them, about 54% had been searching for employment longer than 12 months.

Curaçao's unemployment has been described as structural unemployment, i.e., the skills of the job seekers do not match the characteristics of the job vacancies (Carolina and Pau 2007). Employers complain about the lack of qualified people. However, according to the recent job vacancy survey (Lake 2007) by the CBS, 52% of the job openings require individuals with a low level of education. Curaçao has a supply of workers with a low level of education. Thus, a paradoxical situation exists in the labor market, as high unemployment often coexists with vacancies in the low skilled labor-intensive occupations.

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[4] The Netherlands is a welfare state.
[5] The Dutch Kingdom consists of Curaçao, Bonaire, St. Maarten, Saba, St. Eustatius, Aruba, and the Netherlands (Holland).
[6] The 'leefbaar inkomen' is related to the official minimum wage.
[7] Up to MAVO/LBO/VSBO.

The Social Services Department or "Dienst Werk en Inkomen" (DWI) is a government agency that provides aid to the unemployed and individuals in need of financial and social assistance, and also serves as an employment mediator. According to the law "Regeling Maatschappelijke Zorg Curaçao," the government of Curaçao has to provide assistance to each citizen of Curaçao with a marginal income.

The financial assistance (the social security benefits) consists of:
- Welfare benefits ("Onderstand"). [8]
- Free healthcare assistance ("PP-card").
- Subsidies for rent. The subsidies for rent differ by household. The amount of monthly subsidy is determined by DWI in coordination with the public housing agency.
- Subsidies for utilities. The subsidies for utilities differ by household. The amount of monthly subsidy is determined by the DWI in coordination with the utilities company.
- Annual school uniform allowance. [9]
- Exemption for garbage collection fee.

Depending on the status of the unemployed (see Appendix 2), an individual is eligible to receive the complete package, part of the package, or is not eligible for any financial assistance.

II.3   Labor legislation

The Netherlands Antilles has employment protection legislation to protect workers against labor exploitation. Curaçao, as part of the Netherlands Antilles, has labor protection laws[10] with respect to, among other things, working hours, dismissals, and minimum wage. The private sector has a minimum wage law. As of January 1, 2007, the gross minimum wage is NA*f*. 1,063.45[11] ($594) per month, which is based on a 40-hour work week and applicable to individuals older than 20 years. In August 2000, some labor regulations were amended to make the labor laws more flexible. The dismissal law was changed so that only a few sectors were required to request a dismissal permit. In 2003, some of these amendments were retracted. Despite these retractions, the approval procedures for dismissals have become more even-handed and the decision time has been shortened. Unfortunately, no study has been done to examine the effects of these amendments on unemployment in the period 2000 - 2003.

III.   Theoretical framework

In this section, the theoretical framework for examining the reservation wage is presented. The job search model serves as the starting point for our analysis.

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[8] The monthly welfare benefits are NA*f*. 295.75 (single) or NA*f*. 511.88 (married couple) with a monthly child allowance of NA*f*. 36.40.

[9] School uniform allowance is NA*f*. 100 per child (annually).

[10] The employment protection legislation was introduced in Curaçao on March 30, 1974 (P.B. 1972, 111).

[11] The net minimum wage is approximately NA*f*. 966 per month. For more information, see: http://www.diraz.an/laborlegislation/folder4_eng.htm

III.1   Job search theory

The first search models were developed in the late 1960s, and over the years they have been modified and applied widely in labor economics and macroeconomics. Stigler (1962) introduced the reservation price theory to labor economics. McCall (1970) refined the theory by linking the reservation price theory to the unemployment phenomenon. The labor market job search literature can be classified into two types (Woodbury and Davidson 2002):

1. Information-gathering approach

In this approach, information on the abilities of the job seekers and their wage distribution is incomplete. It takes time and resources for the actors (employers and employees) to gather information. The employees or job seekers have to search both the distribution of wages until they find one that is acceptable; and also job vacancies to find out about the wage the employer is willing to pay that meets their requirements. This search is time-consuming and costly. The job seekers' costs are associated with writing and sending out application letters, transportation costs, and opportunity costs. Employers also search for the most suitable and qualified applicants. Their costs are related to advertising and interviewing applicants.

2. Trade-friction approach

This approach to the unemployment phenomenon was introduced by Pissarides (1985) who assumed that the search for labor is costly due to the existence of trade frictions. Trade friction in the labor market takes place when there is a mismatch of time between the unemployed and the job vacancies. In these models, unemployed workers search for a job, while companies look for people to fill their vacancies. The equilibrium occurs when the unemployed are matched with a job vacancy. This approach will not be dealt with in this study.

Our analysis uses the information-gathering approach in which the job search and matching process is related to imperfect information on both sides of the labor market. The job seekers are usually not aware of all the available jobs, their wage rates, location, and working conditions. The job search involves both costs and benefits related to the searching activity. The benefits have to be weighed against the search costs. The benefits are superior when the job offers involve higher wages or better working conditions. The job seeker's costs of search include sending applications, traveling to interviews, and indirect or opportunity costs. The opportunity costs are measured by the best alternative use of the time devoted to the job search. For those who have quit their job to search for a better job, the opportunity cost would be their previous wage. For others, the opportunity cost would be measured by the best job offer received so far or the wage that could be earned in a job that is available. The opportunity cost can also be the value of their time doing household work. Unemployment benefits or income from other household members can also be part of the opportunity costs.

Factors influencing the search costs are as follows (Prasad 2003; Maani and Studenmund 1986):
1. Economic resources, e.g., last monthly wage income or other sources of income. An unemployed worker who has some other source of income and wealth, e.g., total net household income and wealth from home ownership would lower job search costs, which leads to longer periods of search, raising the reservation wage of the job seeker.
2. Individual and household-specific characteristics, e.g., age, gender, and education. For instance, an unemployed person who has a low education level will have higher job search costs, and hence, a lower reservation wage.

3. Institutional factors, such as the features of the social security system, e.g., unemployment insurance benefits, welfare, and free healthcare, etc. For instance, an unemployed person receiving unemployment insurance benefits has lower job search costs and consequently, a higher reservation wage.

The job seeker has imperfect information about the wage distribution fitting his skills. He only finds out about his wage offer dispersion when he searches. This allows the job seeker to modify the estimate of his wage distribution after each offer. Eventually, the job seeker can decide whether or not to accept an offer. According to job search theory, the "stopping rule" (McCall 1965) is associated with the job seeker's optimal search. The individual uses the reservation wage or "the minimum acceptable wage" as an optimal stopping rule for his job search. Each job seeker's optimal strategy is to reject any wage offer lower than his reservation wage and to continue searching for an offer equal to or exceeding his reservation wage. Basically, the reservation wage is selected to equate the marginal benefits and marginal costs of searching. The standard job search model shows that the reservation wage is a function of the wage offer distribution, the arrival rate of job offers, and the search costs.

The length of unemployment is another factor that can affect the job seeker's reservation wage. The search or unemployment period depends on the wage rate that the individual thinks he can demand for his services on the labor market and on the cost of searching. Unemployment duration may lower the wage requirement, i.e., reservation wage. According to Maani and Studenmund (1986), the reservation wage is likely to decrease after some time, because of wealth effects[12] and human capital depreciation. In contrast, Prasad (2003) claimed the opposite, suggesting that workers with higher reservation wages are more likely to experience longer lengths of unemployment.

III.2   Job search model

Our job search model is based on the information-gathering approach. McCall (1970) extended reservation wage theory to the unemployment phenomenon. According to the International Labor Organization (ILO) definition, an unemployed person is a person actively searching for a job. McCall focuses on the employee's job-searching behavior in an uncertain environment. His study, therefore, takes a partial equilibrium approach to a single worker's decision problem. It is assumed that the searcher knows the distribution of wages of his particular skills, and the costs of searching are a known constant. Job offers arrive periodically, and the searcher accepts or rejects them as they occur. The individual continues to search and remains unemployed as long as the offers are less than some minimally acceptable value. Whenever an offer exceeds this value, the searching worker accepts the offer. The simple job search model has the following variables:

c = cost per period of search,
x = a random variable denoting the job offer (wage rate),
$\varphi(x)$ = the probability density function of x,
$f(x)$ = maximum return obtainable when a job offer x has just been observed.

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[12] Over time, the unemployed person may run out of his savings or unemployment benefits.

The cost, c, is incurred simultaneously with the offer, x.
When the job seeker accepts employment at the Nth job offer, then the return f is equal to the Nth offer, x_N, less the cost of search, c, times the number of job offers:

$$f = x_N - c N \qquad (1)$$

or

$$f(x) = -c + \max [x, E(f(x))] \qquad (2)$$

$$E(f(x)) = \varepsilon$$

The optimal policy is:
Continue searching if $x < \varepsilon$
Accept employment if $x \geq \varepsilon$

After some calculations

$$c = \int_\varepsilon^\infty (x - \varepsilon)\, \varphi(x)\ dx = H(\varepsilon) \qquad (3)$$

The economic interpretation of equation (3) is simple. The cost, c, is the marginal cost of generating another job offer. The second part is the expected marginal return from waiting another period. The critical value, ε, of a job offer is chosen to equate the marginal cost of waiting with its expected marginal return.

The reservation wage, or the critical value (equation (3)), is a function of the wage offer distribution, $\varphi(x)$, the arrival rate of job offers, x, and the search costs, c. In our case, the wage offer distribution and the rate of job offers are unknown. Hence, the reservation wage is a function of the search cost. Higher search cost will lead to a lower reservation wage. Basically, our hypotheses regarding the determinants of the reservation wage will be tested. We examine whether the reservation wage of unemployed job seekers in Curaçao can be explained in terms of the factors determining their search costs, such as economic resources, individual and household-specific characteristics, and institutional factors.

In our analysis, we use the following factors to determine the search costs:
- Last monthly wage income (+)
- Sources of income (social security benefits, household income) (+)
- Education (+/-)
- Age (+/-)
- Gender (+/-)
- Head of household (+)
- The sector in which the person wants to find employment (+/-)
- The presence of foreign workers (-)
- Duration of unemployment (+/-)

The expected signs of the relationship with the reservation wage are shown between parentheses. The relationship can be positive (+), negative (-) or inconclusive (+/-). A higher last monthly wage income will lower the search cost, as the individual is willing to take his time to search for a job that matches his last monthly wage. Lower search cost leads to a higher reservation wage. The same holds for the variable sources of income. A higher education level will lower the search cost, because a highly educated individual has greater earnings possibilities than a lower educated person. Hence, the educated unemployed individual has a low search cost, preferring to take his/her time to look for a suitable job offer. Conversely, lower education leads to lower reservation wages. The effect on the reservation wage of older individuals searching for a job is inconclusive. An older individual may have more working experience and can therefore ask a higher wage. On the other hand, an older individual may be willing to accept a lower wage when competing with a younger labor force. Being the head of household, the unemployed usually expected to demand a higher wage, as they have to maintain the entire family. Individuals searching for employment in sectors that require low-skilled workers are expected to have a low reservation wage. Contrary to the high-skilled labor sectors, the unemployed would ask for higher wages. In general, unemployed females, contrary to their male counterparts, are expected to have a higher search cost and a lower reservation wage. Furthermore, we expect the duration of unemployment to be inconclusive. The longer the person remains unemployed; the search cost is expected to be higher and to be negatively correlated with the reservation wage. To estimate this simple job search model, we apply the Ordinary Least Squares (OLS) method.

IV.   Data

Two different datasets were used in this study. Both sets are restricted to unemployed individuals in Curaçao:

1. Reservation Wage Survey (RWS) conducted by the Bank van de Nederlandse Antillen on unemployed job seekers in Curaçao in the period June-August 2007.
2. Labor Force Survey (LFS 2006) conducted by the CBS in October 2006.

*IV.1 Selection of the samples of the unemployed and the reservation wage*

According to the ILO definition, a person is unemployed when he meets the following criteria: (a) 15 years and older, (b) did not work more than 4 hours last week, (c) is looking for work or wants to start his own business; and (d) will be able to start working within 2 weeks after a job offer or has sufficient funds to start his own business within 2 weeks.

The reservation wage sample consists of unemployed individuals who responded to the question: "What is the lowest salary you are willing to work for?" The sizes of the sample of unemployed as well as the sample that answered the reservation wage question are 569 in the RWS. As the unemployed sample consisted mostly of females, the sub sample of this group (389 persons) was further analyzed.

The size of the unemployed sample of the LFS 2006 is 442. The sub sample size for responses to the reservation wage question is 392; of this sub sample of 392, 252 persons are female.

Figure 1 gives an illustration of the sub samples. As shown, the Reservation Wage Survey and Labor Force Survey differ considerably in their sample sizes.

Figure 1. Sample of the unemployed, sub samples of reservation wage and unemployed females
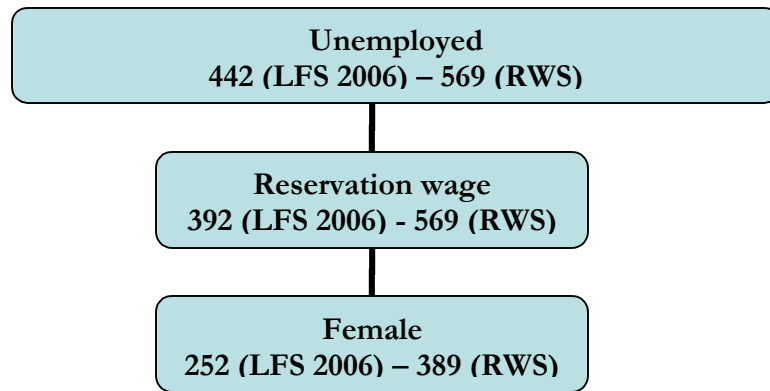
IV.2   Reservation Wage Survey

The first dataset employed in our study is from a survey conducted in Curaçao in the period June - August 2007. The survey consisted of 21 questions related to: (1) individual-household characteristics, e.g., gender, age, marital status, education, and if the job seeker is responsible for most of the household expenses; (2) sector of preference for employment; (3) unemployment duration; (4) institutional factors, e.g., types of social compensation; and (5) economic resources, i.e., the job seeker's last monthly wage. This survey is designed to obtain the level of reservation wage of the unemployed job seekers by asking them the question: "What is the lowest wage at which you would accept a job?" The concept of reservation wage used in our survey is based on net monthly earnings.

The population of the survey is unemployed job seekers. To conduct the survey, we used the database of the Social Services Affairs Department (DWI), which consists of unemployed and nonemployed individuals.

The methods used in this survey were the following:
1. Face-to-face interviews at various locations of the DWI.
   The interviewed individuals were walk-in clients at the DWI offices.
2. A telephone survey of randomly selected clients from the DWI lists.
   The clients were randomly selected from the lists of all the individuals registered at the DWI. These lists provided a complete overview of individuals that had been searching for employment and financial assistance over the years.

The survey response rate for the face-to-face interviews was relatively high. The non-response rate for the telephone survey was about 30% because some of the respondents were unreachable

by phone. This inability to reach people occurred mainly because several of the client lists of the DWI were outdated, leading to the following results: (1) some phone lines were disconnected; (2) some of these people had found employment; and (3) some had become nonresidents.

The number of persons interviewed was 716, 79% (569) of whom were unemployed. The unemployed in our sample are representative of the unemployed population of Curaçao. According to the Labor Force Survey of the Central Bureau of Statistics, the total number of unemployed in Curaçao was 9,241 in 2006. The sample size of 569 observations has a 95% confidence level and sampling error of 4%-points. The sub sample of females has a confidence level of 95% and a sampling error of 5%-points.

IV.3   Labor Force Survey

The second dataset in our study was derived from the Labor Force Survey (LFS 2006) in Curaçao. The LFS 2006 was conducted in October. The aim of the survey was to gather information on the labor market. The LFS 2006 survey was a household survey, with the households selected at random. All members of the households were interviewed. In 2006, questions on the reservation wage were included in the LFS survey for the first time. The sample of the unemployed included 442 persons, while the sample for the reservation wage question was 392 persons. Based on a population of 9,241 unemployed, the confidence level and confidence interval are, respectively, 95% and 5%-points. The confidence level and confidence interval of the female sub sample are, respectively, 95% and 6%-points.

IV.4   Comparison of the statistics for the Reservation Wage Survey and the Labor Force Survey

The statistics of the Reservation Wage Survey and the Labor Force Survey on the sub sample reservation wage are shown in Table 1. The two surveys show to some extent similar results.

Table 1. Comparison between the RWS and LFS 2006 statistics

	RWS	LFS
Unemployed women	68.4%	63.0%
Single persons	65.0%	n/a[1]
Average age	34	37
Younger than age 25	21.0%	27.0%
Long-term[2] unemployed are among the age groups	35-39; 45-49	40-44; 45-49
Not accountable for most of the household expenses	60.0%	n/a[2]
What's the highest source of income in the 1st half of 2007? Income was from their family members	45.0%	n/a[2]
What's the highest source of income of "last month"? No income	n/a	64.0%
Willing to work (i.e., reservation wage) for an average monthly wage of	Net NAƒ. 1,300	Gross NAƒ. 1,433[3]
Low level of secondary education	61.0%[4]	55.5%[5]
Welfare recipients	10.0%	17.4% [6]
Healthcare assistance	39.9%	n/a[2]
No compensation	55.5%	n/a[2]

[1] The LFS 2006 questionnaire does not contain questions on: (1) marital status; (2) who is accountable for most of the household expenses; (3) the highest source of income in the first half of 2007; and (4) the kind of social compensation received by the unemployed persons

[2] Individuals searching for employment longer than 12 months are defined as long-term unemployed, whereas a search shorter than 12 months is considered short-term.

[3] Based on the LFS 2006 sample, since not all of the unemployed answered the question of the reservation wage.

[4] Highest completed education is MAVO/LBO/VSBO.

[5] Highest attended education is MAVO/LBO/VSBO.

[6] LFS 2006 question: What was the source of your highest income last month?

In the RWS, women constitute about 68.4% of the unemployed persons, while in the LFS 2006 the percentage is 63%. The average age of the unemployed job seekers is 34 in the RWS, but slightly higher in the LFS 2006 (37). According to the RWS, approximately 21% of the unemployed individuals are younger than 25 years, compared with 27% in the LFS 2006. In the RWS, the long-term unemployed are among the older age groups 35-39 and 45-49, while in the LFS 2006, they are registered in the age groups 40-44 and 45-49. The RWS statistics show that approximately 61% of the unemployed have a low level of education, while the LFS 2006 indicates a lower percentage of 55.5%. According to the RWS, the job seekers are willing to work (i.e., the reservation wage) for an average net monthly wage of about NAƒ. 1,300 ($726). The job seekers in the LFS 2006 are only willing to accept a job at a gross wage of NAƒ. 1,433 ($801). These reservation wages are higher than the official net minimum wage of NAƒ. 966 ($540) (gross minimum wage NAƒ. 1,063.45 ($594)). In general, individuals with a low level of education earn the minimum wage. Thus, from the RWS data as well as from the LFS 2006 data, we can conclude that the unemployed are willing to work for a wage level (average reservation wage) of about 34% and 35% higher, respectively, than the official minimum wage (net/gross).

V.   Empirical results

In this section, the results of the regression analyses are presented. The dependent variable is the logarithm of the reported reservation wage. In section V.1, we analyze the results of the RWS data. First, we present the results of the total sample. Next, we analyze the female sub sample using the RWS data. In the following sections (V.3 and V.4), a similar approach is used to report the results of the LFS 2006. The sample size of the equations sometimes differs from the original sample size because not everyone responded to all the variables included in the equation. The last section, V.5, deals with the question of the existence of an unemployment trap in Curaçao. The description of the variables used in estimating the reservation wage in the RWS is shown in Table 2.

Table 2. Definition of variables from the Reservation Wage Survey

LRW	Reservation wage, based on the survey question "What is the lowest wage at which you will accept a job (net monthly in NAf.)?" in logs.
LRW_F	Reservation wage in the sub sample of female unemployed in logs.
FEMALE	Female.
AGE(i)	Age i=1519 between the age of 15 and 19; i=2024 between the age of 20 and 24; i=3539 between the age of 35 and 39.
MARDUM(i)	Are you married (i=1); single (i=2); or living together (i=3)?
HOUSEHOLD	How many members does your household consist of?
W-EARN	Are you accountable for most of the household expenses?
EDUC(i)	What is your highest level of completed education? i=1 up to 6th grade; i=2 finished 6th grade; i=3 MAVO, VSBO, LBO i=4 HAVO, MBO, VWO; i=5 HBO; i=6 University degree.
DUDUM(i)	How long have you been looking for employment? i=1 less than 1 month, i=13 between 1 - 3 months, i=46 between 4 - 6 months, i=79 between 7 - 9 months i=1012 between 10 - 12 months, i=12 longer than 12 months.
LASTWRK	Have you worked for a long period of time (3 months or more) in the past 12 months?
SECTDUM(i)	In which sector are you looking for employment? i=4 construction; i=5 trade; i=6 tourism, hotels, and restaurants; i=8 financial.
LLASTWINC	What was your last wage (monthly in NAf.)? in logs.
HIGHINCDUM(i)	What was your highest source of income in the first half of 2007? i=1 member of the household provided for income; i=2 work; i=5 welfare; i=8 no income.
COMP (i)	What types of compensation do you receive (in NAf.)? i=ond (welfare); i=yu (children); i=pp (free healthcare); i=ut (utilities subsidy); i=hur (rent supplement); i=cloth (clothing allowance); i=gar (exemption of garbage collection fee); i=no (no compensation).
COMPENSATIE	Welfare is the highest source of income and receiving free healthcare.
HIGHINCDUM5+COMPPP+ COMPCLOTH	Combination of selected compensation benefits.
HSINC	What is your total weekly household net income (excluding welfare)?

The data in the survey are categorized as follows:

Economic resources factors:
LLASTWINC, the last wage income
HIGHINCDUM(i), the highest source of income
HSINC, weekly household net income
These variables represent economic resources of the unemployed persons.

Institutional factors:
HIGHINCDUM5, highest source of income is welfare
COMP(i), type of compensation
COMPENSATIE, compensations consisting of welfare and free healthcare
HIGHINCDUM5+COMPPP+COMPCLOTH, compensations consisting of welfare, free healthcare, and clothing allowance
These variables represent the institutional factors.

Individual household-specific characteristics
FEMALE, female unemployed job seeker
AGE (i), the age of the unemployed
MARDUM(i), marital status
HOUSEHOLD, the size of household
W-EARN, accountable for most of the household expenses
EDUC(i), educational level
DUDUM(i), duration of unemployment
LASTWRK, employment duration in the last 12 months
SECTDUM(i), sector looking for employment
These variables are associated with the individual household-specific characteristics.

V.1 Results for the unemployed population in Curaçao: the Reservation Wage Survey data

In this section, we examine the reservation wage sample of unemployed individuals in Curaçao. We used the Ordinary Least Squares (OLS) to estimate the regressions. The empirical results are presented in Table 3.

Table 3. Determinants of the reservation wage for the unemployed in Curaçao, 2007 (RWS): OLS regressions.
Dependent variable: Log reservation wage (LRW)

Variables	(1)	(2)	(3)	(4)
LLASTWINC	0.27	0.27	0.28	0.29
	(10.5)	(10.62)	(10.76)	(11.42)
AGE 3539	0.11	0.11	0.10	0.10
	(2.94)	(2.84)	(2.61)	(2.51)
FEMALE	-0.12	-0.12	-0.12	-0.10
	(-3.56)	(-3.63)	(-3.72)	(-2.77)
EDUC2			-0.17	-0.18
			(-2.96)	(-3.25)
EDUC3			-0.11	-0.11
			(-3.04)	(-3.22)
EDUC4	0.08	0.08		
	(2.09)	(2.16)		
EDUC5	0.47	0.48		
	(5.25)	(5.31)		
SECTDUM6				-0.07
				(-1.89)
SECTDUM8	0.10	0.10	0.13	
	(2.29)	(2.31)	(2.90)	
COMPNO	-0.06			
	(-2.04)			
COMPENSATIE		0.08	0.08	0.08
		(3.10)	(3.06)	(3.05)
Intercept	5.27	5.19	5.25	5.18
n	496	496	496	496
R²	0.34	0.34	0.32	0.31

T-statistics are reported in parentheses below coefficient estimates.

Economic resources

Last monthly wage
These results illustrate that in each of the regressions, the reservation wage is positively related to the last monthly wage. A 1% increase in the last wage affects the reservation wage by approximately 0.3%.

Other economic resources variables are dummies for the highest source of income of the job seekers in the first half of 2007. This source could be a household member, or employment, a private pension, or a student loan. These variables are not significant. The variable "total weekly household net income" is also not significant. One explanation would be that the total weekly household net income disclosed was too low because the respondents may not have had the complete income information for the entire household.

Individual and household-specific components

The independent variables reflecting individual and household-specific characteristics are the individual's age, gender, education, wage earner, size of household, marital status, employment duration of last work, and the sector in which the person is looking for employment.

Age group
The age group 35-39 is significant. This age group exerts a positive influence on the reservation wage. Older individuals tend to have higher reservation wages, which may reflect that on average they are likely to have a greater degree of experience.

Gender
The female unemployed variable is negatively correlated with the reservation wage. This finding implies that unemployed females have lower reservation wages than their male counterparts.

Education
Mid and high education levels (EDUC4, EDUC5) have a positive influence on the reservation wage, while low education level (EDUC2, EDUC3) influences the reservation wage negatively. The unemployed job seekers with little or no education are more likely to have lower reservation wages.

Main wage earner, household size, marital status, and employment duration of last work
By contrast, we found that being the wage earner of the household, the size of the household, marital status of the unemployed and employment duration does not have an impact on reservation wages. It is believed that a person tends to ask for a higher wage if he/she is married, has a large household, or has to support the entire household. However, these variables are not significant.

Sector
The results show that the search for employment in the hotels & restaurants sector (SECTDUM6) is negatively correlated with the reservation wage. However, the option of looking for work in the financial services sector (SECTDUM8) exerts a positive effect on the reservation wage. In general, individuals looking for employment in the financial services sector have a relatively higher education level and, therefore, have higher reservation wages. In contrast, the hotels & restaurants sector needs primarily lower-skilled workers. Thus, most of the individuals looking for a job in this sector tend to have lower reservation wages.

Duration of unemployment
The duration of unemployment (DUDUM) may have an impact on the reservation wage. According to various theories, the sign of this relationship is ambiguous. In our sample of unemployed individuals, this variable is not statistically significant.

Institutional factors

It is interesting to note that the variables representing receipt of only one kind of compensation benefit are not statistically significant. Therefore, we have constructed a dummy variable for the social compensation package named COMPENSATIE, which includes welfare ("onderstand")

and free healthcare ("PP-card"). In our regression analyses, this compensation package is statistically significant and positively related to the reservation wage, indicating that the recipients are more likely to have a higher reservation wage. The explanation is that the possibility of losing these compensation benefits is heavily weighed before accepting a job offer. Acceptance of a job will result in the loss of the social security benefits. Therefore, the reservation wage of these recipients is high because they need to be compensated for the loss of these social security benefits.

In the first regression, no compensation (COMPNO) has a negative impact on the reservation wage. Intuitively, individuals who do not receive any compensation benefits would have a lower reservation wage.

V.2 Results for the unemployed female population in Curaçao: the reservation wage survey data

In our view, further examination is needed of the sample of the unemployed in Curaçao. As the unemployed group consists mostly of females, we created a sub sample of unemployed females. Table 4 presents the empirical results from this sub sample. These results are very similar to the regression results for the total unemployed sample. The regressions including the variables LLASTWINC, AGE 3539, EDUC 2, 3, 4, SECTDUM6, SECTDUM8, and COMPENSATIE reveal similar results to the regressions for the sample of total unemployed.

However, some notable differences exist between the determinants of the reservation wage in the regressions of total unemployed and those of the unemployed females. The mid-education level, the variable EDUC4 is significant. Unemployed females with a mid-education level exert a positive influence on the reservation wages. In the total sample, both EDUC4 and EDUC5 (high-education level) are significant.

Other differences between the total unemployed and the unemployed females are HIGHINCDUM5 and COMPPP, representing, respectively, welfare benefits as the highest source of income in the first half of 2007 and free healthcare. Each of these variables is positively correlated with the reservation wages in the sub sample of females. In the total unemployed sample, receiving only one kind of compensation benefit is not statistically significant. The survey shows that most of the female recipients are single. It is well known that most of these females are single mothers. Before accepting a job offer, they must be sure that their net labor income outweighs the loss of either one of these compensation benefits. Namely, acceptance of a job means losing the social security benefits.

The third difference lies in the combination of three compensation benefits: HIGHINCDUM5, COMPPP, and COMPCLOTH. This combination is also positively correlated with the reservation wage. Moreover, in contrast to the sample of the total unemployed, the variable representing individuals searching for employment longer than 12 months (DUDUM12) is statistically significant, indicating that the long-term unemployed have a lower reservation wage.

Table 4. Determinants of the reservation wage for unemployed women in Curaçao, 2007 (RWS): OLS regressions.

Dependent variable: Log reservation wage (LRW_F)

Variables	(1)	(2)	(3)	(4)	(5)
LLASTWINC	0.27	0.27	0.29	0.26	0.27
	(9.29)	(9.20)	(10.3)	(9.13)	(9.23)
AGE 3539	0.10	0.10	0.08	0.10	0.10
	(2.25)	(2.18)	(1.76)	(2.25)	(2.22)
EDUC2		-0.24	-0.18	-0.24	-0.26
		(-3.55)	(-2.76)	(-3.48)	(-3.69)
EDUC3		-0.12		-0.13	-0.13
		(-2.94)		(-3.06)	(-3.11)
EDUC4	0.11				
	(2.41)				
SECTDUM6			-0.08		
			(-1.82)		
SECTDUM8	0.14	0.13		0.12	0.13
	(2.71)	(2.55)		(2.43)	(2.43)
HIGHINCDUM5	0.14			0.14	
	(2.01)			(2.10)	
HIGHINCDUM5+COMPPP+COMPCLOTH		0.07			
		(2.27)			
COMPPP					0.07
					(1.87)
COMPENSATIE			0.07		
			(2.15)		
DUDUM12	-0.09	-0.07	-0.08	-0.09	
	(-2.53)	(-1.93)	(-2.17)	(-2.36)	
Intercept	5.14	5.28	5.07	5.33	5.24
n	326	326	326	326	326
R^2	0.32	0.34	0.32	0.34	0.33

T-statistics are reported in parentheses below coefficient estimates.

V.3 Results for the unemployed population in Curaçao: the Labor Force Survey

In this section, we examine the results for the total unemployed population sample in Curaçao, based on the Labor Force Survey (LFS 2006), and discuss the dissimilarities between the RWS and LFS 2006. Similar to the Reservation Wage Survey (RWS), the dependent variable for this dataset is the logarithm of the reported reservation wage. Table 5 presents the description of the variables used in estimating the reservation wage for the LFS 2006 dataset.

Table 5. Definition of the variables in the Labor Force Sample Survey 2006

LRW	Reservation wage, based on the survey question "What is the lowest wage at which you will accept a job (monthly in NA/.)?" in logs.
LRW_F	Reservation wage in the sub sample of female unemployed in logs.
FEMALE	Female.
AGE(i)	Age i=1519 between the age of 15 and 19; i=2024 between the age of 20 and 24; i=3539 between the age of 35 and 39.
HEAD	Are you the head of the household?
EDUC(i)	What is your highest level of education? i=2 up to 6th grade; i=3 MAVO, VSBO, LBO; i=4 HAVO, MBO, VWO; i=5 HBO; i=6 University degree.
DUDUM(i)	How long have you been looking for employment? i=1 less than 1 month, i=13 between 1- 3 months, i=46 between 4 - 6 months, i=79 between 7 - 9 months i=1012 between 10 - 12 months, i=12 longer than 12 months.
LASTWORK	Have you worked for more than a month in the past 12 months?
SECTDUM(i)	In which sector are you looking for employment? i=5 trade; i=6 tourism, hotels, and restaurants.
LLASTWINC	What was your last wage (monthly in NA/.)? in logs
HIGHINCDUM(i)	What was your highest source of income last month? i=1 work; i=2 pension; i=4 welfare; i=10 no income.
FOREIGN	Why is it difficult to find a job? Answer: foreigners are occupying the job vacancies.

As with the RWS sample, the influence of economic resources, institutional factors, and individual and household-specific characteristics on the reservation wage is analyzed. Contrary to the RWS, the LFS 2006 data do not include the variables HSINC, HOUSEHOLD, MARDUM(i), W-EARN, COMP(i), COMPENSATIE, and HIGHINCDUM 5+COMPPP+COMPCLOTH, as the specific questions related to these variables are not part of the LFS 2006 survey. In addition, the variable HIGHINCDUM(i) differs from the RWS. The LFS 2006 data, however, contain the variables head of the household (HEAD) and foreign workers (FOREIGN).

Table 6 presents some findings about the total unemployed in Curaçao. The results on most of the coefficients are relatively similar to the RWS regressions. In each of these regressions, the reservation wage can be explained by economic resources, i.e., last monthly wage.

Economic resources

Last monthly wage
The last monthly wage received by unemployed job seekers clearly has a strong positive effect on their reservation wages. A 1% gain in the last wage affects the reservation wage by approximately 0.4%.

Individual and household-specific variables

The independent variables reflecting individual and household-specific characteristics are the individual's age, gender, education, and head of household.

Age group
The age group 35-39 is significant. In contrast to the findings for the RWS data, the variable AGE3539 in the LFS 2006 is negatively correlated with the reservation wage. One possible explanation for the difference in the sign may be the relatively higher percentage of females in this age group (79%) compared to the RWS (70%).

Gender
The female unemployed variable is negatively related to the reservation wage. Hence, unemployed females have lower reservation wages than their male counterparts.

Education
In contrast to the RWS, the mid-level education (EDUC4) variable is not significant in the LFS 2006. Only the unemployed with a high education level (EDUC5) exert a positive influence on the reservation wages. Unemployed job seekers with low education levels (EDUC2, EDUC3) influence the reservation wage negatively.

Head of household
The head of the household (HEAD) variable was only included in the LFS 2006 survey. This variable has a negative effect on the reservation wage. According to economic theory, the head of a household would have a higher reservation wage, because he is responsible for most of the household expenses. In the LFS 2006, the head of the household is not explicitly defined, leading to different interpretations. Generally, the oldest person in the household is seen as the head of the household in Curaçao. This person is usually not the main income earner of the household and does not participate in the labor force. The head of the household may just be a simple title; it does not necessarily mean that this person is responsible for the main part of the household's spending. Therefore, these individuals may have a lower reservation wage. In a study performed by Seguino (2003) there is a negative relationship between the female headships in the Caribbean region and the reservation wage.

Duration of unemployment
The dummy variable DUDUM13, denoting persons searching for employment between 1 and 3 months is statistically significant. As opposed to the long-term unemployed, the short-term unemployed are more likely to have higher reservation wages. These short-term unemployed still have a threshold because they can rely on their savings. In addition, not enough time has passed to allow their human capital to depreciate. Therefore, they can continue to search till they get an acceptable job offer.

Table 6. Determinants of the reservation wage for the unemployed in Curaçao, 2007(LFS 2006): OLS regressions.
Dependent variable: Log reservation wage (LRW)

Variables	(1)	(2)	(3)
LLASTWINC	0.42	0.42	0.37
	(8.80)	(9.55)	(4.89)
AGE3539			-0.28
			(-1.71)
FEMALE	-0.15	-0.12	
	(-2.06)	(-1.67)	
HEAD		-0.15	-0.22
		(-2.25)	(-2.17)
EDUC2	-0.27		-0.48
	(-2.35)		(-2.46)
EDUC3	-0.17		-0.26
	(-2.19)		(-2.02)
EDUC5		0.56	
		(4.43)	
DUDUM13	0.14		
	(1.75)		
FOREIGN			-0.36
			(-2.23)
Intercept	4.31	4.18	4.82
n	254	254	128
R²	0.42	0.44	0.41

T-statistics are reported in parentheses below coefficient estimates.

Foreign workers
According to the LFS 2006, only 6.1% of the unemployed claimed that foreign workers in the labor market are filling the job vacancies. Hence, we have included this independent variable in the regressions. The variable FOREIGN representing foreign workers as the cause of an individual being unemployed is significant. This variable exerts a negative influence on the reservation wage, as low-skilled domestic workers have to compete for the same jobs as the foreign workers.

V.4 Results for the unemployed female population in Curaçao: the Labor Force Sample Survey

The sub sample of unemployed females as well as the dissimilarities between the RWS and LFS 2006 data for this sub sample is analyzed in this section. The results of estimating the relationship between the log of reservation wage and the explanatory variables are shown in Table 7. These results are somewhat similar to the regressions for the female unemployed sub sample of the RWS. Each of these LFS 2006 regressions has only 86 observations with the exception of regression 4 because 86 respondents answered that the vacancies are being filled by foreigners.

The variable FOREIGN significantly affects the reservation wages in regressions 1-3. The competition of the foreigners induces females to have a lower reservation wage. Again, we must bear in mind that the sample of this regression is smaller because only 9.5% of the female

respondents argued that foreign workers are the reason for fewer job opportunities. The variables, COMPPP, COMPENSATIE, and HIGHINCDUM 5+COMPPP+COMPCLOTH, are not covered in the LFS 2006 questionnaire. In addition, the variables SECTDUM6, SECTDUM8, and DUDUM12 are not significant in the LFS 2006.

The effect on the reservation wage for the group between the ages of 35 – 39 of the LFS 2006 sub sample is opposite to that for the RWS sub sample. The data show that this group consists of a proportionally higher percentage of females, which exerts a negative influence on the reservation wage.

Each LFS 2006 sub sample regression included the variable HEAD, which represents the head of the household. Similar to the LFS 2006 total unemployed sample, the relationship between HEAD and the reservation wage is negative.

Contrary to the RWS sub sample, the variable high education level (EDUC5) is significant in the LFS 2006. The variable for unemployed job seekers with a high education level is positively related to the reservation wage. Meanwhile, being low educated unemployed (EDUC2, EDUC3) is negatively correlated with the reservation wage.

In the LFS 2006 sub sample, the variable HIGHINCDUM4 representing welfare as the highest source of last month's income has a positive influence on the reservation wage. This variable is comparable to the variable HIGHINCDUM5 in the RWS sub sample.

Table 7. Determinants of the reservation wage for unemployed women in Curaçao, 2007 (LFS 2006): OLS regressions.
Dependent variable: Log reservation wage (LRW_F)

Variables	(1)	(2)	(3)	(4)
LLASTWINC	0.29	0.29	0.32	0.37
	(3.05)	(3.09)	(3.68)	(6.79)
AGE 3539		-0.41	-0.38	
		(-1.97)	(-1.84)	
HEAD	-0.37	-0.41	-0.41	-0.22
	(-2.75)	(-3.07)	(-3.06)	(-2.67)
EDUC2	-0.49	-0.53		
	(-1.97)	(-2.14)		
EDUC3	-0.41	-0.40		
	(-2.35)	(-2.37)		
EDUC4			0.36	
			(1.91)	
EDUC5			0.53	0.67
			(1.92)	(3.50)
HIGHINCDUM4	0.34	0.34	0.34	
	(2.21)	(2.23)	(2.28)	
FOREIGN	-0.75	-0.67	-0.64	
	(-3.67)	(-3.29)	(-3.19)	
Intercept	5.38	5.44	4.85	4.45
n	86	86	86	169
R²	0.36	0.43	0.43	0.34

T-statistics are reported in parentheses below coefficient estimates.

V.5 Existence of the unemployment trap in Curaçao using the Reservation Wage Survey

The high unemployment in Curaçao is sometimes attributed to the unemployment trap. The unemployment trap exists when there is a small difference between the welfare income and net income from a low-paying job. Basically, in these circumstances, an individual's net income will be lowered by taking a job, because he/she will no longer be eligible for social security benefits. As a result, it is argued that the unemployed would prefer to remain unemployed instead of getting a job. Although not all social security benefits (i.e., rent supplement, utilities, exemption of garbage collection fee, and free healthcare) are received as an income, their aggregated value can outweigh the income of being employed and earning a minimum wage (see Appendix 2). In our case, only those unemployed receiving the complete social security package can be considered in the unemployment trap. According to the RWS, the majority of unemployed job seekers do not receive any compensation (55.5%). Thus, the argument that the unemployment trap explains the high unemployment rate is unfounded. Only welfare recipients are eligible to receive the complete social security package. Actually, the argument of the unemployment trap is applicable only to a minority of the unemployed (up to 10%).[13] However, one benefit that the unemployed may not be willing to lose is free healthcare. In our survey, 39.9% of the unemployed received the free healthcare. Because accepting a job offer will deprive the unemployed from this particular social security benefit, they are willing to remain jobless. We

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[13] According to the LFS 2006, a minimum of 17.4% of the unemployed are welfare recipients.

can conclude, however, that additional factors play a role in determining why the majority of unemployed individuals choose to remain unemployed. Future research is required to identify these factors.

VI. Concluding remarks

The high unemployment in Curaçao is of great concern. Some relate the high unemployment to the social security benefits. It is a popular notion that many people are able, but not willing to work because they would lose their social security benefits, thereby lowering their net income: the so-called unemployment trap. To argue convincingly that social security benefits encourage people to remain unemployed requires determining the level of the reservation wage. Therefore, one of the aims of this paper was to find the level of the reservation wage. The other objective was to examine the factors that determine the reservation wage of the unemployed in Curaçao using a basic job search model. Furthermore, the unemployment trap, which is identified by some as the source of the high unemployment, is analyzed. For this analysis, two datasets were used, i.e., the Reservation Wage Survey (RWS) and the Labor Force Survey (LFS 2006). Moreover, because females constitute the majority of the unemployed population, female sub samples were created based on these two surveys.

The average reservation wage level was net NAƒ. 1,299.17 (US$ 726) in the RWS and gross NAƒ. 1,433.22 (US$ 801) in the LFS 2006. Although the standard deviations of these reservation wages are high, they were used as an indicator for the lowest wage at which the unemployed are willing to accept a job. From our analyses, we can conclude that the unemployed are willing to work for a wage level (average reservation wage) about 35% higher than the 2007 official gross minimum wage.

In the total sample of the RWS, we found that the last monthly wage earned, having a mid and high education level, being in the age group of 35-39, looking for work in the financial sector, and having a combination of social security benefits were positively correlated with the reservation wage. A rise in any one of these factors resulted in an increase in the reservation wage. By contrast, reservation wages were lower when the unemployed job seeker is a female, has a low education level, is looking for a job in the hotels and restaurants sector, and has no social security benefits.

For the total sample, the RWS and the LFS 2006 produced generally similar results. There were some differences because the question related to social security benefits was not included in the LFS 2006 survey, while the questions on the head of the household and foreign were not included in the RWS survey. The only striking difference in the regressions between the RWS and LFS 2006 was the variable for individuals between the ages of 35 and 39. In the RWS sample, the relationship between the age group 35 to 39 and the reservation wage was positive. In the LFS 2006 sample, this relationship was negative. This may be the result of the relatively higher percentage of females in this age group in the LFS sample. Another difference with the LFS 2006 dataset was that the head of the household had a negative relationship with the reservation wage. Actually, the head of the household is not clearly defined in the LFS 2006 questionnaire, so it can be interpreted in different ways.

In the female sub sample of the RWS, we found that the last monthly wage earned, having a mid-level education, being in the age group of 35 to 39, looking for work in the financial sector, and having one or a combination of social security benefits were positively correlated with the reservation wage. In contrast, having a low education level, looking for work in the hotels and restaurants sector, and being long-term unemployed were negatively related to the reservation wage. The female sub samples of the RWS and the LFS 2006 produced nearly similar results. The major difference between the RWS and the LFS 2006 was that the determinants in the LFS 2006 regressions, such as age group 35-39, head of the household and foreign workers have a negative impact on the reservation wages. In the LFS 2006, being female unemployed with a high education exerted a positive influence on the reservation wage.

The recipients of social security benefits (RWS samples) were more likely to have higher reservation wages, suggesting that the possibility of losing these benefits is heavily weighed before accepting a job offer. Therefore, the reservation wage for these individuals is high since they must be compensated for at least the loss of these social security benefits. However, given the RWS data, we cannot prove that receiving the complete package of social security benefits leads to the unemployment trap. Contrary to popular belief, the majority of the unemployed (55.5%) do not receive any type of compensation. Only a minority of the unemployed receives the complete social security package and can be considered caught in the unemployment trap. Therefore, to claim that the unemployment trap is the reason for the high unemployment in Curaçao is unfounded.

Further study on the provision of free healthcare is necessary because 39.9% of the unemployed received this benefit. It is likely that the unemployed may not be willing to lose this benefit; therefore, they prefer to stay jobless. Last, to examine whether a high reservation wage is the cause of the unemployment remaining high, it is necessary to have time series data on the unemployed and the reservation wage. Determination of the reservation wage on an annual basis is a first step to build such a series.

Appendix 1

The literature includes different definitions for the unemployment/poverty trap. In some cases, the unemployment and the poverty trap are used interchangeably. In our study, we have followed the OECD definitions.

The unemployment trap
 "The unemployment and related welfare benefits are high relative to expected net earnings discouraging individuals from taking a job so that the unemployed have little incentive to search actively for a job" (OECD). "The net income difference between low-paid work and worklessness benefits is less than work related costs, discouraging movement into work" (Wikipedia). The unemployment trap can only occur when someone is unemployed.

The poverty trap
 "Workers earning low pay have little or no incentive to raise their earnings by increasing the amount of time and effort in work as they face very high marginal effective tax rates" (OECD). "Refers to the position when in-work income-tested benefit payments are reduced as income rises, combined with income tax and other deductions, and with the effect of discouraging higher paid work whether that involves working longer hours or acquiring skills" (Wikipedia). The poverty trap can occur only when someone is employed.

Appendix 2

Regulations for financial and social assistance

To be eligible for welfare ("onderstand"), the petitioner must meet the following conditions:[14]

1. Dutch citizen that is a resident of the island of Curaçao. The individual must prove that he/she lacks the means for subsistence or
2. Foreigner, who has a residence permit and based on humanitarian reasons, cannot be repatriated.

In addition, the petitioner must meet one of the following conditions:

3. Head of the family.
4. Belong to a family by marriage or blood relation:
   - A family member aged 18, deemed as disabled and unable to work by the Health Services.
   - Live-in unmarried adult children with dependents.
5. Head of the family providing for his/her parents or married/separated children living in the same residence on a temporary basis or
6. An adult family member with work income living in another household and about to enter matrimony within a year or
7. Among the age group 15-55, he/she must be registered at the Department of Labor as searching for employment.
8. Must accept the job that meets his/her requirements. Failing to do so or choosing to be voluntarily unemployed can result in becoming ineligible for welfare.

To be eligible for free healthcare, the petitioner must meet the following conditions:[15]

1. Dutch citizens that are residents of the island of Curaçao. These people must prove that they lack the means for subsistence or
2. Foreigners that are residents of Curaçao, but lack the necessary resources for subsistence.

In addition, the petitioner must meet one of the following conditions:

3. Receiving welfare.
4. Among the age group 60-62 benefiting from old age pension (P.B. 1960, 155).
5. Among the age group of 62 and older benefiting from general old age pension (P.B. 1960, 83).

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[14] For detailed information, see A.B. 1971 No. 11: E.B. h.a.m., van de 23ste april 1971 ter uitvoering van artikel 8 van de regeling maatschappelijke zorg Curacao.

[15] For detailed information, see A.B. 1978 No. 39: Eilandsverordening houdende regelen betreffende de verlening van bijstand in de medische koste van on-en minvermogenden.
A.B. 1981 No. 6: E.B. h.a.m, van de 2de juni 1981 ter uitvoering van artikel 18 lid 3 van de eilandsverordening bijstand kosten medische hulp.
A.B. 2005 No. 61: E.B. h.a.m, van de 15de juni 2005 tot wijziging van het E.B. h.a.m. van de 2de juni 1981 ter uitvoering van artikel 18, derde lid van de eilandsverordening bijstand kosten medische hulp.

6. Children living in a state institution.
7. Seniors staying in a state retirement home.
8. Earning an income below the minimum wage (P.B. 1972, 110).

The individuals seeking financial and social assistance are categorized by the Social Services Department as follows:

1. Categories 1-2: these individuals are easily employable ("goed bemiddelbaar"). Employable means that the person has the proper education (diploma's), work experience, is able to start working immediately, and short-term unemployed (< 9 months).

2. Category 3: these individuals are not easily employable ("matig bemiddelbaar") because they lack the proper education and work experience, are long-term unemployed (> 12 months), and are usually over the age of 55. Basically, they need to follow some training to improve their skills prior to starting employment. Included in this category are people who came out of drug rehab. Most of these individuals are welfare ("onderstand") recipients.

3. Category 4: these individuals are nonemployable ("niet bemiddelbaar"), e.g., sick, and physically and mentally disabled people. However, this group is relatively small.

The phone lists of the unemployed job seekers we used for the RWS were:

1. St. Maria: list of categories 1-3 for the ages 20-45.
2. Punda: complete list of categories 1-3.
3. Otrobanda: complete list of categories 1-4.
4. Brievengat: list of categories 1-2 for the age group of 24 and higher.
5. Dokterstuin: complete list of categories 1-3.
6. St. Rosa: list of categories 1-2 of the ages 18-44.

The following tables give an overview of the estimated total social security benefits of a single welfare recipient (Table 8) and a couple (Table 9).

Table 8. Social security benefits (monthly NA*f.*) for a single welfare recipient in 2005

	no children	1 child	2 children	3 children	4 children
Welfare	295.75	295.75	295.75	295.75	295.75
Child allowance	0.00	36.40	72.80	109.20	145.60
Subsidy for rent	25.31	25.31	25.31	25.31	25.31
Subsidy for utilities	36.00	36.00	36.00	36.00	36.00
Exemption garbage collection fee	20.00	20.00	20.00	20.00	20.00
Free healthcare [1]	200.00	400.00	600.00	800.00	1,000.00
School uniform allowance [2]	0.00	8.33	16.67	25.00	33.33
Total social security benefits	526.44	771.17	1,015.91	1,260.64	1,505.37

Source: Commissie Introductie Plaatsing Bevorderingsinstrument, rapport Introductie Plaatsing Bevorderingsinstrument "Rumbo pa Trabou," juni 2005.

[1] According to DWI on average amount per month on healthcare is NA*f.* 200.

[2]. The school uniform allowance is on annual basis. The annual amount is divided by 12 months.

Table 9. Social security benefits (monthly NA*f.*) for married recipients in 2005

	no children	1 child	2 children	3 children	4 children
Welfare	511.88	511.88	511.88	511.88	511.88
Child allowance	0.00	36.40	72.80	109.20	145.60
Subsidy for rent	51.19	51.19	51.19	51.19	51.19
Subsidy for utilities	36.00	36.00	36.00	36.00	36.00
Exemption garbage collection fee	20.00	20.00	20.00	20.00	20.00
Free healthcare	400.00	600.00	800.00	1000.00	1200.00
School uniform allowance	0.00	8.33	16.67	25.00	33.33
Total social security benefits	916.69	1,161.42	1,406.16	1,650.89	1,895.62

Source: Commissie Introductie Plaatsing Bevorderingsintrument, rapport Introductie Plaatsing Bevorderingsinstrument "Rumbo pa Trabou," juni 2005.

Appendix 3

Table 10. Summary statistics RWS (total sample)

Variable	CODE	Mean	Standard deviation
Log reservation wage	LRW	7.09	0.4
Reservation wage (monthly, NA*f.*)	RW	1,299.17	539.31
Log past wage	LLASTWINC	6.91	0.63
Past wage (monthly, NA*f.*)	LASTWINC	1,125.78	668.18
Unemployment duration (months)	DUDUM	LONG-TERM (47.8%)	
Education	EDUC	MAVO/VSBO/LBO (61%)	
Bill payments	W-EARN	40.4%	0.49
Age	AGE	34	9.98
Members family (#)	HOUSEHOLD	4	2
Marital status	MARIDUM	SINGLE (64.7%)	
Female	FEMALE	68.4%	

Table 11. Summary statistics RWS (female)

Variable	CODE	Mean	Standard deviation
Log reservation wage	LRW	7.03	0.39
Reservation wage (monthly, NA*f.*)	RW	1,221.2	479
Log past wage	LLASTWINC	6.8	0.68
Past wage (monthly, NA*f.*)	LASTWINC	1,013.97	602.13
Unemployment duration (months)	DUDUM	LONG-TERM (46.5%)	
Education	EDUC	MAVO/VSBO/LBO (59.9%)	
Bill payments	W-EARN	31.4%	
Age	AGE	33	9.64
Members family (#)	HOUSEHOLD	4	2
Marital status	MARIDUM	SINGLE (69.2%)	

Table 12. Summary statistics LFS 2006 (total sample)

Variable	CODE	Mean	Standard deviation
Log reservation wage	LRW	7.08	0.61
Reservation wage (monthly, NA*f.*)	RW	1,433.22	1,169.4
Log past wage	LLASTWINC	7.13	0.8
Past wage (monthly, NA*f.*)	LASTWINC	1,120.88	1,453.1
Unemployment duration (monthly)	DUDUM	52% longer than 1 month	
Education	EDUC	MAVO/VSBO/LBO (55.5%)	
Head of household	HEAD	29.59%	
Age	AGE	37	13.07
Female	FEMALE	64.3%	

Table 13. Summary statistics LFS 2006 (female)

Variable	Mean	Standard deviation
Log reservation wage	6.96	0.59
Reservation wage (monthly, NA*f.*)	1,242.74	951.9
Log past wage	6.96	0.74
Past wage (monthly, NA*f.*)	929.6	1,036.12
Unemployment duration (months)	51.59% longer than 1 month	
Education	MAVO/VSBO/LBO (55.3%)	
Head of household	29.37%	
Age	37	12.5

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