

# **Ineffectiveness of Social Contacts and Alternate Job Search Methods for Unemployed Youth in Sri Lanka**

**Verité Research Working Paper Series**

**Ineffectiveness of Social Contacts and Alternate Job Search  
Methods for Unemployed Youth in Sri Lanka**

Mihindu Perera

**June 2020**

## **ABSTRACT**

Sri Lankan youth due to an extended period of unemployment face a lower possibility in future employment and a reduced earning capacity. As a solution, this paper aims to identify an efficient search method.

Emphasis is placed on social contacts, given its popularity as a search method. Social contacts prove inefficient- leading to a 10.0% reduction in unemployment duration with a wage discount of 7.1%. Also, social contacts create a form of stickiness that increases dependency on social contacts and a reluctance to choose other, more efficient search methods in the future. The popularity, inefficiency and stickiness of social contacts are speculated as the probable cause for a large pool of youth to be unemployed over an extended period.

As an alternative to social contacts, internet job search proves to be a more efficient search method reducing unemployment duration by 21.6% with a wage premium of 14.3%.

Keywords: Social Contacts, Search Methods, Unemployment Duration, Wage

JEL: J41, J64

## INTRODUCTION

Sri Lanka's youth unemployment in 2018 accounted for 53% of the total unemployed populace, with an average unemployment duration close to two years (Fernando et al., 2018).<sup>1</sup> As youth face an extended period of unemployment, they fall victim to certain adverse effects- broadly defined as unemployment scarring. An example of such adverse effects is a lower possibility in employment (Belle et al., 2018) and a reduced earning capacity (Arulampalam et al., 2001). As a solution for Sri Lankan youth, an efficient search method may shorten the duration of unemployment and help avoid such adverse effects.

However, although a search method may help reduce the duration of unemployment, literature has shown that a search method has a mixed outcome on wage. In some instances, literature has shown that a search method may lead to a discounted wage [Addison and Portugal (2002), Franzen and Hangartner (2006), Bentolila et al., (2010)]. In contrast, literature has also shown a wage premium through a search method (Kuhn and Mansour, 2014). Given such mixed outcomes, an efficient search method should see a reduction in unemployment duration at a desirable wage outcome.

This paper aims to identify an efficient search method for Sri Lankan youth. The efficiency is measured on the estimated reduction in unemployment duration and wage outcome of a search method. Various search methods are considered, such as employment agencies, university/school career services, social contacts, newspaper advertisement, internet job search, and walk-in/direct hires.

From each of these search methods, results indicate that 37.0% of the youth populace use social contacts and see a reduction in unemployment duration by 10.0%. However, social contacts discounts wage by 7.1%, highlighting its inefficiency as a search method for Sri Lankan youth.

Also, results indicate that the use of social contacts creates a form of stickiness. This stickiness increases an individual's dependency on social contacts by 31.0% with a weak reluctance to use other search methods ranging from 0.8%-10.8%. This paper speculates that the use of social contacts may act as an explanation for the extended period of unemployment faced by Sri Lankan youth given its popularity, stickiness and ineffectiveness.

As an alternative, results indicate internet job search proves to be a more efficient search method as opposed to social contacts for Sri Lankan youth. Although 6.4% of youth populace use internet job search, it provides a 21.6% reduction in unemployment duration with a wage premium of 14.3%.

The main finding of this paper highlights the inefficiency of social contacts and link its use as the probable cause for Sri Lankan youth to face an extended period of unemployment. This paper provides an alternative search method through internet job search that will help Sri Lankan youth overcome an extended period of unemployment and the effects of unemployment scarring.

---

<sup>1</sup> Youth unemployment figures are drawn from the Sri Lanka Labour Force Survey- Annual Report 2018, refer page 27-28  
[Available at:[http://www.statistics.gov.lk/samplesurvey/LFS\\_Annual%20Report%202018-f.pdf](http://www.statistics.gov.lk/samplesurvey/LFS_Annual%20Report%202018-f.pdf)].

The remainder of this paper elaborates on these results across six sections. The first section summarises literature focused on search methods and its effect on unemployment duration and wage. The second section describes the data and provides descriptive analysis used in the estimation of unemployment duration and wage. The third and fourth section describes the method of estimation and results related to measuring unemployment duration and wage by search method. The fifth section measures the efficiency of each search method by combining results in section three and four. The final section acts as a conclusion.

## THE LITERATURE

This section provides a summary of the literature focused on search methods and its effect on unemployment duration and wage. A focal point within literature has been the use of social contacts, primarily due to its prominence as a search method. Montgomery (1991) elaborates on the prevalence of social contacts across previous studies. Each study has shown social contacts accounts for a varying degree of job acquisition- dependent on occupation (Rees and Schultz, 1970), designation (Granovetter, 1974), and gender-ethnic background (Corcoran et al., 1980).

Within the context of youth, Holzer (1987) shows that 85% of youth in the United States remain reliant on social contacts. One reason for youth to remain reliant on social contacts is due to a lack of "occupational contact networks" (Hällsten et al., 2017). However, on the effectiveness of social contacts for youth, Holzer (1987) shows that social contacts generate a higher number of job offers and acceptance per-unit of time spent searching. Hällsten et al., (2017) further support this claim by using a linear probability model and estimates a lower level of unemployment for youth through social contacts that are friends and neighbours.

When measuring the effectiveness of social contacts on youth unemployment duration, Franzen and Hangartner (2006) provide empirical results based on a sample of Swedish graduate. They estimate a reduction in unemployment duration through a hazard rate model supporting Holzer (1987). However, they also indicate that social contacts lead to a wage discount as youth settle for non-pecuniary benefits.

Bentolila et al., (2010) supports the claim that social contacts lead to a reduction in unemployment duration for youth within the European Union and the United States. Their results also specify that social contacts lead to a wage discount- indicating a tradeoff between unemployment duration and wage. They conclude that social contacts induce a wage discount as an individual either opt to exit unemployment faster to meet the social expectations of friends and family. They also state a wage discount to be a possibility due to a poor job fit.

However, literature also provides evidence that social contacts lead to a wage premium such as Simon and Warner (1992). Simon and Warner (1992) indicate that referral from current employees leads to an extended tenure at a higher initial wage. The higher initial wage is due to an individual being well-matched initially to a job by their referee- as the referee may screen job opportunities. Mortensen and Vishwanath (1994) using the theory of market equilibrium, shows that an individual receives a higher wage when transitioning from unemployment to employment through a higher probability of social contacts. Apart from the literature mentioned above, Ioannides and Loury (2004) provide an excellent survey of literature examining the outcomes of employment and wage through social contacts.

As shown above, social contacts may help reduce unemployment duration for youth but at a wage discount. This tradeoff may be troubling, given it leads to adverse wage outcome. However, social contacts can also generate a wage premium. In essence, when measuring the effectiveness of a search method, not only should the outcome on unemployment duration be considered but the impact on wage.

Following this process, Addison and Portugal (2002) evaluate the effectiveness of other search methods such as direct applications, friends/relatives, advertisements, and public employment agencies on unemployment duration and wage in Portugal. Their results, based on a hazard rate model, indicates a significant reduction in unemployment duration for direct application but not other search methods. Additional findings indicate that a direct application, friends/relatives, and public employment agencies all lead to a statically significant reduction

in earnings. Advertisements as a search method lead to a statistically insignificant reduction in earnings. Findings from Addison and Portugal (2002) indicates that a direct application process leads to a reduction in unemployment duration followed by a wage discount. Although not explicitly stated in their paper, this indicates a tradeoff between unemployment duration and wage for direct applications.

Kuhn and Skuterud (2004) examine the effect of internet job search on unemployment duration in the United States. Their findings do not indicate any reduction in unemployment duration through the use of internet job search. However, using a sample of youth, Kuhn and Mansour (2014) states internet job search provides a reduction in unemployment duration with a weak improvement in wage from one job to another. Therefore, Kuhn and Mansour (2014) gives evidence on a tradeoff between unemployment duration and wage but with a positive wage outcome, unlike other search methods. They support this positive wage outcome and specifically the reduction in unemployment duration to be an improvement in online websites hosting job vacancies.

As highlighted by literature, the change in unemployment duration and proceeding wage outcome varies by search method. Literature has shown that a search method may produce a reduction in unemployment duration but may discount or add a premium to wage. Also, the concentration of literature within this review has focused on countries in the United States and Europe.

This paper takes a unique means of ranking each search method based on the reduction in unemployment duration and proceeding wage outcome. The ranking system will identify a search method on its overall efficiency- ideally providing a search method that leads to a reduction in unemployment duration at a positive wage outcome. This paper also contributes to the understating of search methods on unemployment duration and wage for youth in Sri Lanka given no significant literary contribution exists at present. Findings from this paper provide a solution to reducing unemployment duration for youth that may, in turn, help overcome a large proportion of overall unemployment in Sri Lanka.

## DATA AND DESCRIPTIVE ANALYSIS

This paper utilises data from the 2018 Youth Survey Database composed of Sri Lankan youth between the age of 15-35. This database helps reconstruct employment history for any respondent following section 4 of the survey schedule.<sup>2</sup>

Within section 4 of the survey schedule, question 4 asks each respondent for their monthly duration of employment in their current and previous four job positions. Question 6 asks each respondent for their monthly duration of unemployment between job positions. Combining questions 4 and 6 this paper reconstructs consecutive spells of employment and unemployment for a respondent. The month each respondent was surveyed is used as a starting point to reconstruct backward spells of employment and unemployment.<sup>3</sup> The data set excludes respondents that left their job position for education as the survey does not account for the change in education profile. Each respondent may have several spells ranging from 1–10 with varying lengths within each spell. Any respondents employment and unemployment history backtrack ten years from the end date of the survey.<sup>4</sup>

Within section 4 of the survey schedule, question 14 asks each respondent their search method listed as a categorical variable taking values 1-9. This paper considers the first six categories; an employment agency (1), university/school career services (2), social networks (friend/relative or others) (3), newspaper advertisement (4), internet job search (5), and walk-in/direct hire (6). This paper considers jobs through government gazette (7) and individuals that sat a test (8) as others (9). Table 1 provides the median duration of unemployment and the proportion of respondents using each search method.

Table 1: Median duration unemployed and usage by search method

<u>Job acquisition</u>	<u>Duration Unemployed (Median)</u>	<u>Proportion</u>
Employment agency	26	0.081
University/School career services	18	0.037
Social contact	26	0.375
Newspaper advertisement	30	0.115
Internet job search	23	0.064
Contacted employer directly	17	0.088
Others	36	0.240

Table 1 shows 37.5% (0.375) of all respondents use social contacts with a median duration of unemployment of 26 months. Therefore, social contacts account for a majority of the search methods used by respondents. Respondents that contacted their employer directly or used university/school career services show a lower median duration of unemployment but also account for a lower proportion of respondents.

Table 2: Mean characteristics by individuals using social contacts vs other search methods

<u>Characteristic</u>	<u>Social Contacts</u>	<u>Other</u>
-----------------------	------------------------	--------------

<sup>2</sup> The survey schedule can be accessed at

[https://gallery.mailchimp.com/46937025e269d1a0b82e7c90d/files/5a91491f-450c-4e03-acee-14f5624e68ab/YouLead\\_Youth\\_Survey.pdf](https://gallery.mailchimp.com/46937025e269d1a0b82e7c90d/files/5a91491f-450c-4e03-acee-14f5624e68ab/YouLead_Youth_Survey.pdf)

<sup>3</sup> The start date for all respondents is the same as the survey was concluded in one month.

<sup>4</sup> The data sets used for analysis can be requested from the author via email.

<u>Demographics</u>		
Male	0.63	0.62
Age (years)	25.3	26.89
<u>Education</u>		
Primary	0.08	0.04
Secondary	0.71	0.63
Undergraduate	0.05	0.11
Graduate	0.01	0.01
Professional	0.02	0.04
Vocational	0.13	0.17
<u>Ethnicity</u>		
Sinhalese	0.85	0.78
Tamil	0.12	0.19
Muslim	0.02	0.03
Others	0.00	0.00
<u>Job positions</u>		
0	0.00	0.00
1	0.58	0.61
2	0.23	0.24
3	0.14	0.10
4	0.03	0.03
5	0.02	0.01
Salary (LKR)	25133.37	28763.14
English	0.40	0.51
Computer	0.50	0.68

Table 2 provides summary statistics by gender, age, education, ethnicity, job positions, salary, english, and computer proficiency. As a majority of respondent use social contacts as a search method, results are divided by respondents that use social contacts and respondents that use other search methods. The mean wage for a respondent that uses social contacts (25133.37 LKR) is below the mean wage (28763.14 LKR) for a respondent that uses other search methods. Thus, suggesting a tradeoff between unemployment duration and wage for social contacts.

## UNEMPLOYMENT DURATION BY SEARCH METHOD

This section measures the change in unemployment duration following a respondent's search method. The method of estimation follows Bentolila et al., (2008) regressing each respondents search methods upon their spell of unemployment ( $U_{it}$ ):

$$U_{it} = \omega + \sum_{k=1}^6 \alpha_k \cdot S_{k,it} + \beta X_{it} + \mu_{it}$$

$S_{k,it}$  represents each search method as a binary variable with corresponding coefficients  $\alpha_k$ .  $\beta$  represents coefficients identifying  $X_{it}$  control variables summarised in Table 3 excluding salary, english and computer proficiency. This specification is the baseline model. Subscripts  $i$  represents individual respondents and  $t$  representing their corresponding spell.

An accurate estimate on unemployment duration following a respondent's search method requires careful consideration on the distribution of failures characterising a baseline hazard function. This paper considers various distributions to construct the baseline hazard function, such as the Exponential, Weibull, Log-logistic, Log-normal, and Generalized-gamma distribution.

Table 3: AIC for parametric distribution selection

<u>Distribution</u>	<u>Log-likelihood</u>	<u>AIC</u>
Exponential	-1278.54	2599.08
Weibull	-1216.58	2477.16
Log-logistic	-1317.90	2679.80
Log-normal	-1307.07	2658.15
Generalized gamma	-1214.44	2474.89

Results in Table 3 indicates the selection of the Generalized-gamma distribution following the Akaike Information Criterion (AIC). However, the difference between the Weibull and Generalized-gamma distribution is minimal in terms of AIC. The Generalized-gamma distribution, constructed through three parameters  $\beta_0$ ,  $\kappa$ ,  $\sigma$  under certain conditions characterise the Exponential, Log-normal, and Weibull distribution. Addison and Portugal (1987) and J et al., (2019) state that the Generalized-gamma distribution may aid in testing suitability of other distributions for the specified data set. Results in Table 3 eliminate the Exponential, Log-normal, and Log-logistic distribution based on the AIC- leaving the Weibull distribution. The Generalized-gamma distribution is equivalent to the Weibull distribution when  $\kappa = 1$ . Testing the resulting constraint under the null hypothesis  $H_0 : \kappa = 1$  identifies the suitability of the Weibull distribution over the Generalized-gamma distribution. Test statistics fail to reject the null hypothesis at 5% statistical significance- implying  $\kappa = 1$  and suitability of the Weibull distribution.

Table 4: Unemployment duration by search method

	(1)	(2)	(3)	(4)	(5)
employment agency	-0.201** (0.08)	-0.187** (0.08)	-0.199** (0.08)	-0.176** (0.08)	-0.170** (0.08)
university/school career fairs	-0.333** (0.13)	-0.328** (0.13)	-0.368*** (0.13)	-0.348*** (0.12)	-0.355*** (0.12)
social contacts	-0.106** (0.05)	-0.093* (0.05)	-0.098** (0.05)	-0.085* (0.05)	-0.069 (0.05)
newspaper advertisements	-0.179*** (0.07)	-0.173** (0.07)	-0.175** (0.07)	-0.149** (0.07)	-0.140** (0.07)
internet job search	-0.244** (0.10)	-0.237** (0.10)	-0.258*** (0.10)	-0.169* (0.10)	-0.183* (0.10)
walk-in/direct hire	-0.306*** (0.08)	-0.295*** (0.09)	-0.291*** (0.08)	-0.271*** (0.08)	-0.255*** (0.08)
Observations	1,444	1,444	1,444	1,444	1,444
log-likelihood	-1216.58	-1215.67	-1214.01	-1206.46	-1203.32
AIC	2477.16	2481.34	2482.02	2492.92	2502.63
LR-test (p-value)	0.00	0.61	0.40	0.32	0.43
employment sector		yes	no	no	yes
employment designation			yes	no	yes
employment industry				yes	yes

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Estimates for the baseline model is produced in column (1) of Table 4 using the Weibull distribution. Column (2)-(5) provides estimates incorporating controls to the baseline model, such as the employment sector, designation, and industry. Comparing the baseline model in column (1) to other columns helps identify the statistical significance of such controls. Results safely reject the significance of controls within columns (2)-(5) based on the high p-value for the LR-test. Additionally, the AIC criterion supports the selection of the baseline model over columns (2)-(5). Each coefficient representing a search method indicates a reduction in unemployment duration with standard errors clustered by respondents.

Table 5: % change in median unemployment duration by search method

	(1)	(2)	(3)	(4)	(5)
	_t	_t	_t	_t	_t
employment agency	-18.18	-17.09	-18.01	-16.17	-15.61
university/school career fairs	-28.31	-27.95	-30.81	-29.40	-29.86
social contacts	-10.04	-8.92	-9.34	-8.13	-6.69
newspaper advertisements	-16.37	-15.85	-16.07	-13.88	-13.03
internet job search	-21.61	-21.13	-22.75	-15.59	-16.74
walk-in/direct hire	-26.36	-25.57	-25.26	-23.75	-22.49
employment sector		yes	no	no	yes
employment designation			yes	no	yes
employment industry				yes	yes

Table 5 provides the reduction in median unemployment duration for each search method based on coefficients given in Table 4. Results are given for columns (1)-(5) and estimated on the transformation  $(\exp(\alpha_k) - 1) \times 100$ . Interpretation is limited to the baseline model due to the reasons discussed previously. Table 6 shows the highest reduction in unemployment duration through university/school career fairs by 28.3%. In contrast, the smallest reduction in unemployment duration occurs through social contacts by 10.0%.

In this paper, internet search provides a reduction in unemployment duration close to 21.6%. Kuhn and Mansour (2014) also find a similar estimate stating internet job search provides a 25% reduction in unemployment duration for a sample of unemployed youth. They complement this positive change to be an advancement of technology related to job vacancy sites and the proliferation of the internet.

Addison and Portugal (2002) show that a direct application process provides a statistically significant reduction in unemployment duration using a hazard rate model. Walk-in/direct hires, a similar process to a direct application, leads to a 26.4% reduction in unemployment duration and is in line with findings provided by Addison and Portugal (2002). However, other search methods, such as friends/relatives, advertisements, and public employment agencies, are known to be statistically insignificant. This paper provides a statistically significant reduction in unemployment duration through the use of employment agencies (18.2%), social contacts equivalent to friend/relatives (10.0%) and newspaper advertisements (16.4%).

When ranking each search method based on the reduction in unemployment duration, university/school career services provide the most significant reduction at 28.3%- followed by walk-in/direct hires, internet search, employment agencies, newspaper advertisements, and social contacts. Results of such a ranking system help identify an efficient search method by its ability to transition an individual out of unemployment quickly. However, such a ranking system ignores the effect of a search method on wage.

## WAGE BY SEARCH METHOD

This section estimates a respondent wage by search method. Following the previous section each respondents search method  $S_{k,it}$  is regressed upon a respondents log-salary ( $lsalary_{it}$ ). In turn  $\alpha_k$  captures the change in wage for each search method. A positive coefficient translates to a wage premium and a negative coefficient to a wage discount.  $X_{it}$  includes a set of controls in Table 3, excluding english and computer proficiency. Subscripts  $i$  represents individual respondents with  $t$  representing their corresponding job.

$$lsalary_{it} = \omega + \sum_{k=1}^6 \alpha_k \cdot S_{k,it} + \beta X_{it} + \mu_{it}$$

Table 6: Wage premium/discount by search method

	(1)	(2)	(3)	(4)	(5)
employment agency	0.032 (0.06)	0.085 (0.07)	0.043 (0.06)	0.018 (0.06)	0.068 (0.07)
university/school career fairs	-0.048 (0.11)	-0.069 (0.11)	-0.054 (0.11)	-0.063 (0.11)	-0.058 (0.11)
social contacts	-0.111** (0.04)	-0.070 (0.05)	-0.090** (0.04)	-0.128*** (0.04)	-0.078* (0.04)
newspaper advertisements	0.041 (0.05)	0.058 (0.05)	0.038 (0.05)	0.021 (0.05)	0.037 (0.05)
internet job search	0.160** (0.07)	0.198*** (0.07)	0.141** (0.07)	0.150** (0.07)	0.171** (0.07)
walk-in/direct hire	-0.134** (0.06)	-0.103* (0.06)	-0.106* (0.06)	-0.140** (0.06)	-0.098 (0.06)
Observations	1,132	1,132	1,132	1,132	1,132
R-squared	0.23	0.25	0.26	0.26	0.29
log-likelihood	-843.41	-833.37	-824.98	-820.94	-799.55
AIC	1728.81	1714.73	1701.95	1719.87	1693.09
LR-test (p-value)	0.00	0.00	0.00	0.00	0.00
employment sector		yes	no	no	yes
employment designation			yes	no	yes
employment industry				yes	yes

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 6 presents the wage premium/discount from each search method. Column (1) acts as the baseline estimate, and columns (2)-(5) add controls such as the employment sector, designation, and industry. The likelihood ratio test in columns (2)-(5) identifies that controls remain statistically significant at 1%. Standard errors reported are clustered by the respondent. Using the AIC interpretation is limited to column (5). Coefficients for an employment agency, university/school career fairs, newspaper advertisements, and walk-in/direct hires as search methods remain statistically insignificant. However, social contacts and internet search remains statistically significant. Results indicate that internet search provides an 18.6% wage premium, whereas social contacts provide a 7.5% wage discount.

Bentolila et al., (2008) take measures to control for family background and ability due to its effect on the usage of social contacts. Their study controls for a parent's years of education, a respondent's ability to speak english, and access to a computer during high school. They also control for a respondent's high school grade, if the respondent has been jailed, or suffers from health issues limiting a respondents work. However, limitations in the 2018 Youth Survey Database restrict the use of such controls. However, some measures help control for individual ability that may affect a search method.

Table 7: Wage premium/discount by search method controlling for ability

	(1)	(2)	(3)	(4)
employment agency	0.068 (0.07)	0.061 (0.07)	0.069 (0.07)	0.062 (0.06)
university/school career fairs	-0.058 (0.11)	-0.069 (0.11)	-0.078 (0.11)	-0.078 (0.11)
social contacts	-0.078* (0.04)	-0.081* (0.04)	-0.067 (0.04)	-0.074* (0.04)
newspaper advertisements	0.037 (0.05)	0.026 (0.05)	0.031 (0.05)	0.024 (0.05)
internet job search	0.171** (0.07)	0.143** (0.07)	0.144** (0.07)	0.134* (0.07)
walk-in/direct hire	-0.098 (0.06)	-0.104* (0.06)	-0.101* (0.06)	-0.104* (0.06)
Observations	1,132	1,132	1,132	1,132
R-squared	0.29	0.30	0.30	0.31
log-likelihood	-799.55	-788.60	-792.71	-787.07
AIC	1693.09	1673.21	1681.42	1672.15
LR-test (p-value)	0.00	0.00	0.00	0.00
english proficiency		yes	no	yes
computer proficiency			yes	yes

Robust standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 7 presents results that control for an individual's ability in terms of english and computer proficiency. English proficiency is used as a control as an individual with a higher proficiency for the English language may have a higher ability to use and access a social network. Computer proficiency will also control an individuals ability to use the internet for job search. Each respondent from the survey schedule rated various aspects of english and computer proficiency on a scale of 1-6. Respondents stated 1, indicating "no ability in relation to the specified skill" and were considered equivalent to 6 "do not know/unable to rate." English proficiency was measured based on their ability to read, write, and speak. Any individual that rated their ability to read, write, and speak collectively as average or above (3 or higher on the scale ) were considered proficient. Such individuals were coded as a binary variable taking a value "1" if true and "0" otherwise. A respondent's computer proficiency was measured by asking their competency in basic and advanced computer skills. Respondents that were average or above in each aspect were considered proficient in computer skills and coded in a similar method to english proficiency. The likelihood-ratio test shows the use of english and computer

proficiency as controls remains statistically significant at 1% within column (2)-(4). Results for interpretation follow selection based on the AIC- indicating column (4).

Results show that social contacts lead to a wage discount of 7.1%. In contrast, walk-in/direct hires lead to a more considerable wage discount of 9.8%. University/school career fairs also lead to a wage discount, but results are statistically insignificant. However, internet search provides a wage premium of 14.3%. Employment agencies and newspaper advertisements also provide a wage premium, but results are statistically insignificant.

Addison and Portugal (2002) show a similar wage discount of 7.6% through social contacts and a 7.5% wage discount from in walk-in/direct hires. Kuhn and Mansour (2014) provide similar results for internet search with an increase in wage by 7.7%, but results are statistically insignificant. Comparisons between columns (1)-(4) show english and computer proficiency acting as controls decrease the wage discount effect from social contacts. Evidence from Bentolila et al., (2008) provides a similar change when accounting for individual ability in social contacts.

## THE EFFECTIVENESS OF EACH SEARCH METHOD

This section measures the effectiveness of each search method by comparing the reduction in unemployment duration from Table 5 column (1) to the corresponding wage in Table 7 column (4). Although each search method shows a reduction in unemployment duration, some show varying effects on wage- either leading to a wage premium or discount.

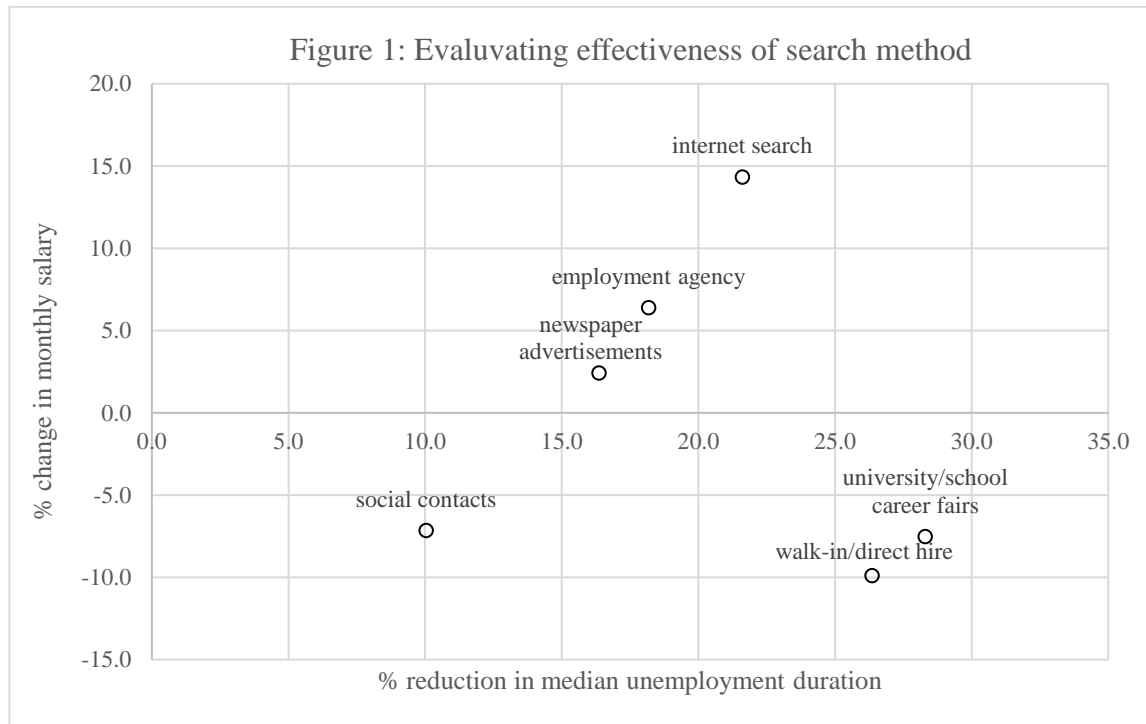


Figure 1 shows a scatter plot evaluating the effectiveness of each search method. The x-axis maps the percentage reduction in median unemployment duration, and the y-axis maps the percentage change in wage for each search method. Each search method leads to a reduction in unemployment duration. However, an efficient search method will lead to a higher reduction in unemployment duration and offer a wage premium- a higher salary. A less effective search method will have a reduction in unemployment duration but offer a discounted wage- a lower salary.

Results in Figure 1 show that social contacts perform poorly in terms of an effective search method in comparison to others. Social contacts reduce unemployment duration by 10.0% but discount wages by 7.1%. Walk-in/direct hires lead to a more significant reduction in unemployment duration by 26.3% but discount wage by 9.8%. However, internet search sees a 21.6% reduction in unemployment duration, and unlike previous search methods offer a wage premium of 14.3%. Interpretation of Figure 1 is limited to statistically significant results, both in terms of unemployment duration and the wage. Given the ineffectiveness of social contacts as a search method, a question remains if the use of social contacts is persistent as a search method. In this regard, an additional assessment is conducted based on a linear probability model.

$$S_{k,i} = \theta L.S_{3,i} + \beta X_i + \mu_i$$

$$S_{k,i} = \begin{cases} 1 & \text{if chosen } k \text{ search method} \\ 0 & \text{otherwise} \end{cases} \quad k = \{1,2,3, \dots, 6\}$$

Specifications above indicate  $S_{k,i}$  as a binary variable for one of  $k$  search methods used by a respondent to find their current job position.  $k$  takes a value of 1 to 6, representing one of the six search methods. The use of social contacts in the previous search process is denoted by  $L.S_{3,i}$ .

As the estimation process is repeated across each search method, as shown below.

$$\begin{aligned} S_{1,i} &= \theta L.S_{3,i} + \beta X_i + \mu_i \\ &\vdots \\ S_{6,i} &= \theta L.S_{3,i} + \beta X_i + \mu_i \end{aligned}$$

$\theta$  helps identify if previous use of social contacts discourages or encourages the use of other search methods- in effect measuring the stickiness of social contacts.  $X_i$  represents a host of control variables such as age, gender, ethnicity, education, household income, use of welfare programs, previous length of unemployment, total job positions, english proficiency, computer proficiency, job sector, job designation, and industry dummies. The sample for this estimation process includes individuals that have held at least three job positions limiting the total sample size to 996 respondents.

Table 8: the determinant of social contacts on proceeding job search method

	(1) employment agency	(2) university/school career fairs	(3) social contacts	(4) newspaper advertisements	(5) internet job search	(6) walk- in/direct hire
L.social contact	-0.079*** (0.03)	-0.003 (0.01)	0.310*** (0.06)	-0.068 (0.04)	-0.016 (0.03)	-0.108*** (0.04)
Observations	996	996	996	996	996	996
R-squared	0.112	0.134	0.188	0.081	0.122	0.067

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 8 presents coefficients for  $\theta$  estimating the stickiness of social contacts. Results indicate that given previous use of social contacts, an individual is 31.0% more likely to use social contact in their next search process. Additionally, previous use of social contacts may deter the usage of other search methods. Walk-in/direct hires see a 10.8% reduction, whereas employment agencies see a 7.9% reduction in usage as their current search method. Results suggest university/school career fairs, newspaper advertisements, and internet searches also show a decrease in usage given previous use of social contacts. However, such results are statistically insignificant, and these results are considered weak in measurement.

Results in Table 8 indicate that social contacts as a search method exhibit stickiness leading youth to become reliant on social contacts with a reluctance to use other search methods. This stickiness may be due to the obligation of youth to meet social expectations of family and friends (Bentolila et al., 2010) and become reliant on the job matching process of social

contacts. Also, youth may differ usage of other job search methods for social contacts due to their obligation to meet the social expectations of family and friends. Another reason for youth to remain reliant on social contact is that youth lack their own network of occupational contacts (Hallsten et al., 2019).

Due to the compliance of youth to meet the expectation of family and friends and their lack of occupational contacts, youth remain reliant on social contacts for job offers persistently. However, as social contacts provide the smallest reduction in unemployment duration for youth, they remain in the unemployment pool for longer. Also, the persistent use of social contacts and its popularity amongst youth helps answer why 53% of Sri Lanka's unemployed populace are youth.

## CONCLUSION

This paper using empirical measures estimates that social contacts reduce unemployment duration by 10.0% and leads to a wage discount of 7.1%- indicating its ineffectiveness as a search method for youth. Additionally, results indicate that youth once reliant on social contacts suffers from a form of stickiness in terms of usage. This stickiness leads to a 31.0% higher chance of selecting social contacts as a search method and a reluctance to use other search methods- varying from 0.3%-10.8%. Implying youth have a distinct possibility of remaining unemployed for longer with a discounted wage due to social contacts. However, other search methods do provide a solution. Job search through the internet provides a more significant reduction in unemployment duration of 21.6% and a wage premium of 14.3%.

In total, this paper shows that social contacts are a less than efficient search method for youth in the Sri Lankan labour market. Other search methods, such as internet job search, do provide a solution but is used by a small proportion of youth. Improving internet access, online job search platforms, and educating youth on the benefits of online job search may help boost usage of internet job search over social contacts for youth. This will shorten their duration in unemployment and reduce the overall concentration of youth from the unemployment pool.

## **Reference List**

- Addison, J.T. and Portugal, P.** (2002). 'Job Search Methods and Outcomes', Oxford Economic Papers, **3**, 505-533.
- Addison, J.T. and Portugal, P.** (1987). 'On the Distributional Shape of Unemployment Duration', The Review of Economics and Statistics, **3**, 520-526.
- Antoninis, M.** (2006). 'The Wage Effects from the Use of Personal Contacts as Hiring Channels', Journal of Economic Behavior and Organization, **1**, 133-146.
- Arulampalam, W. Gregg, P. and Gregory, M.** (2001). 'Introduction; Unemployment Scarring', The Economic Journal, **475**, F577-F584.
- Belle, E.V. Di Stasio, V. Caers, R. De Couck, M. and Baert, S.** (2018). 'Why Are Employers Put Off by Long Spells of Unemployment?', European Sociological Review, **6**, 694-710.
- Bentolila, S. Michelacci, C. and Suarez, J.** (2010). 'Social Contacts and Occupational Choice', Economica, **305**, 20-45.
- Corcoran, M. Datcher, L. and Duncan, G.** (1980). 'Information and Influence Networks in Labour Markets', in: Duncan, G; James, M (eds.), Five Thousand American Families: Patterns of Economic Progress, Vol 7. Ann Arbour, 1-37.
- Fernando, S. Thowfeek, R. Perera, M. and de Silva, V.** (2018). 'Youth Labour Market Assessment Sri Lanka. Study on behalf of Youlead Project- IESC', Colombo.
- Franzen, A. and Hangartner, D.** (2006). 'Social Networks and Labour Market Outcomes: The Non-Monetary Benefits of Social Capital', European Sociological Review, **4**, 353-368.
- Granovetter, M. S.** (1974). 'Getting a Job: A Study of Contacts and Careers'. Cambridge, MA (in press)
- Holzer, H. J.** (1987). 'Informal Job Search and Black Youth Unemployment', The American Economic Review, **3**, 446-452.
- J, K. Ngesa, O. and Orwa, G.** (2019). 'On Generalized Gamma Distributions and Its Application to Survival Data', International Journal of Statistics and Probability, **5**, 85-102.
- Kuhn, P. and Mansour, H.** (2014). 'Is Internet Job Search Still Ineffective', The Economic Journal, **581**, 1213-1233.
- Kuhn, P. and Skuterud, M.** (2004). 'Internet Job Search and Unemployment Durations', The American Economic Review, **1**, 218-232.
- Loury, L.D.** (2006). 'Some Contacts Are More Equal Than Others: Informal Networks, Job Tenure, and Wages', Journal of Labor Economics, **2**, 299-318.
- Montgomery, J.D.** (1991). 'Social Networks and Labour-Market Outcomes: Towards an Economic Analysis', The American Economic Review, **5**, 1408-1418.
- Rees, A. and Schultz, G.P.** (1970). 'Workers and Wages in an Urban Labour Market'. Chicago (in press).

**Simon, C.J. and Warner, J.T.** (1992). 'Matchmaker, Matchmaker: The Effect of Old Boy Networks on Job Match Quality, Earnings, and Tenure', *Journal of Labour Economics*, **3**, 306-330.

**Mortensen, D.T. and Vishwanatha, T.** (1994). 'Personal Contacts and Earnings', *Labour Economics*, **1**, 187-201.

**Ioannides, Y.M. and Loury, L.D.** (2004). 'Job Information Networks, Neighbourhood Effects, and Inequality', *Journal of Economic Literature*, **4**, 1056-1093.

## **Declarations**

### **Availability of data and material**

The datasets used for this paper are available from the author on request. The analysis provided in this paper uses STATA 16 as the statistical package, and the codes for replication is available from the author on request.

### **Competing interest**

The author has no competing interest. Results and views presented in this paper are that of the author's alone.

### **Funding**

Not applicable

### **Authors contributions**

Not applicable

### **Acknowledgements**

The author would like to acknowledge the Youlead project for funding the Youth Survey Database that was made available to the public and used as a data source for this paper. The Youlead project is a USAID funded program focused on youth skills development and entrepreneurship.

### **Disclaimer**

The data source used for this paper is openly available at <https://www.veriteresearch.org/publication/youth-labour-market-assessment-sri-lanka/> as the Youth Survey Database 2018. This database was made available through the Youlead Project a USAID funded program. The opinions reflected in this article are of the author.

### **Authors information**

Mihindu Perera is an Analyst at Verité Research. Verité Research is an independent think tank located in Sri Lanka that provides strategic analysis for Asia in the areas of economics, politics, law, and media. Email: [mihindu@veriteresearch.org](mailto:mihindu@veriteresearch.org)