

## Internet Job Search and Match Quality of Young Workers: Past and Present\*

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### Abstract

The developments of computer and internet technologies have changed our economic lives considerably. This paper examines how internet use affects job search and match outcomes of young workers in South Korea during the early 2000s and the late 2010s. Using the Youth Panel datasets, the result shows that the employment effect is not significant in the early 2000s, consistent with prior findings, but it turns out significant for unemployed workers in the late 2010s. The study also reports some empirical evidence of wage effects in the early 2000s. Workers successfully employed by internet search have a 5-7 percent wage premium over those employed by traditional methods except referrals or social networks. The positive wage effect is reported among women and previously unemployed workers. In addition, new employees who have ever searched online for a job are more likely to search other jobs in the early 2000s, while their probability of leaving current jobs is not different from that of non-internet searchers.

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## I. Introduction

The developments in computer and internet technologies have changed our economic lives in many respects. They allow consumers to shop all over the country and compare product prices, thus generating “e-commerce” as a new way of trading in the product market. A similar phenomenon called “e-recruiting” has also been witnessed in the labor market, as well described by Krueger (2000). A notable influence of internet technology on the labor market is found in the widespread internet job boards that allow job seekers to gather information about job opportunities or to post their resumes.<sup>1)</sup> Kuhn and Skuterud (2004) show that job finding through the internet has become important in the United States in the early 2000s, although many job seekers still use traditional job search methods. Using the internet to search for jobs or find new employees to fill vacancies seems to benefit both job seekers and recruiters, compared to traditional job search channels such as direct contact with employers, friends or alumni, family or relatives, public or private employment agencies, advertisements, or school employment centers. The internet not only allows job seekers to search for more jobs almost without cost in a shorter time period, but also lets employers find better-fitted workers without paying expensive advertising costs (Krueger, 2000; Autor, 2001). Furthermore, the internet may affect job search behaviors and match outcomes by enhancing communication among job seekers. They can exchange their own experiences in the job market, thus increasing both the quantity and quality of information about places where they want to work.

The internet has become a part of everyday life during the last decades in South Korea, which is well known as one of the most

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1) “Monster.com” is a frequently cited example of internet job boards in the United States.

networked countries. As Figure 1 shows, the number of internet users reached to about 30 million in the early 2000s, more than 60 percent of the total population. Nowadays more than 90 percent of population uses the internet. Focusing on young people, the numbers would be much higher. The internet is widely accessible from almost everywhere, not only at home. Internet cafes providing high-speed internet service at cheap prices are easily found even in the countryside. Thus, the “digital divide” may hardly be an issue for young job candidates in South Korea, even in the 2000s.

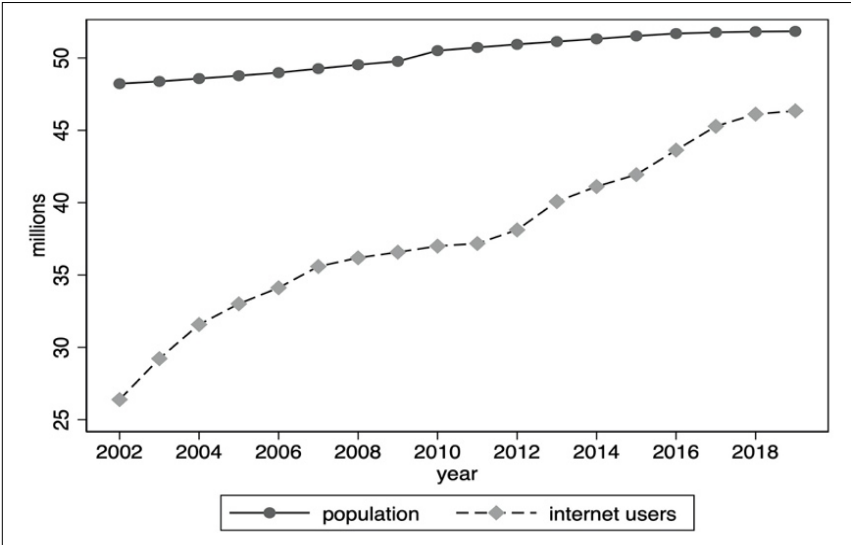
The labor market in South Korea is also under the influence of this new development in the early 2000s. Similar to the U.S. online job boards described earlier by Krueger (2000) and Autor (2001), the internet has been widely used by job seekers and employers in South Korea. A government agency, the Korea Employment Information Service under the Ministry of Employment and Labor, has administrated a website for job seekers and employers since 1998, called *WorkNet*.<sup>2)</sup> There is also a volume of internet job boards and communities managed by private businesses or organized by individual members. For instance, an internet community of job seekers opened in 2002 has more than a half-million registered members who exchange job information and personal experiences in the job market, such as what was asked in the job interview.<sup>3)</sup> Communication with other job seekers or recent employees may help job seekers gather information on job characteristics such as salary and workplace environment, thus possibly increasing match quality.

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2) The online address is <http://www.work.go.kr>. As of April 18, 2006, 117,189 jobs were posted by 62,043 employers, and 381,879 job seekers were registered. According to the National Statistical Office, the estimated number of unemployed workers in April 2006 is approximately 790,000 in South Korea.

3) The online address is <http://cafe.daum.net/breakjob>.

<Figure 1> Growth of Internet Users in South Korea



Source: Internet Use Survey, Ministry of Science and ICT: data from KOSIS.

The usefulness and importance of the internet as a new job search and match method have been emphasized by many labor economists, and there are some empirical studies that examine the effects of the internet on the labor market. Initial empirical research by Kuhn and Skuterud (2000, 2004) focuses on search outcomes such as unemployment spells and employment probability in the United States. Contrary to various positive expectations, they find that internet job search is not effective in reducing unemployment duration and suggest the possibility of self-selection of job seekers. Lacking available data, they leave unexamined the match quality of jobs searched through the internet. Their findings do not imply that the match quality of jobs through internet search is not as good as those located through traditional methods. On the one hand, if internet job searchers are picky and have higher reservation wages than others, using the internet is not expected to reduce unemployment duration. Matches through the internet, however, would result in higher wages and longer tenure. On the other hand,

severe competition in the internet job market may yield good matches, although it reduces the employment probability per application of job seekers.

A more recent study by Kuhn and Mansour (2014) reports contrasting results for the period of 2005-2008. They find a positive effect of internet job search on reducing unemployment durations along with a weak positive impact on wage growth in a new job. A similar effect of reducing unemployment spell is reported by Suvankulov et al. (2012). They estimate the probability of re-employment in Germany and South Korea. Another study by Stevenson (2009) examines internet effects on job search activities and job mobility using state-level aggregate data in the United States. She finds that job seekers search more than before in states where the internet is adopted rapidly and concludes that job mobility of young and educated workers increases due to expansion of the internet.

The goal of this study is to examine the impacts of internet use on job search outcomes and match quality in the early 2000s and the late 2010s and compare the results to describe how the labor market has changed by exploiting the new technology. This paper first examines whether internet job search affects the probability of being employed and compares the results with the previous studies. In South Korea, more than 70 percent of young job seekers used the internet to look for job openings in the early 2000s - compared to about 10 percent in the United States in 2000.<sup>4)</sup> Considering the easy access to the internet, as well as the dominance of internet job search among various methods, the results from the South Korea case might be more interesting. Similar to the earlier study by Kuhn and Skuterud (2004), no notable effects of internet job search on the employment probability are found in the early 2000s. However, the

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4) The data are not restricted to young workers in the United States (Kuhn and Skuterud, 2000).

effects for unemployed workers turns out significant in the late 2010s.

The more interesting questions are associated with the match quality of jobs searched online. An analysis of match quality requires incorporating well-established empirical evidence on the relative advantages and disadvantages among various traditional job search methods. Firstly, a volume of theoretical and empirical research examines the benefits of using social networks or employee referrals (Montgomery, 1991; Simon and Warner, 1992; Mortensen and Vishwanath, 1994; Kugler, 2003).<sup>5)</sup> Social networks may not only increase the probability of getting job offers, but also enable job seekers to collect more detailed information on workplaces and help them find well-matched jobs. The employers' benefit from using referrals includes more accurate information about job candidates and lower monitoring costs. Examining the effect of "old boy networks" on job match quality, Simon and Warner (1992) find that referrals from current employees reduce employers' uncertainty about worker productivity, thus boosting the initial wages of workers hired by old boy networks, lowering subsequent wage growth, and having them stay longer on the job than would otherwise comparable workers. A majority of these studies concentrate on the comparative advantage of jobs searched by personal or social networks against those found by formal job search methods. Osberg (1993) also suggests that workers with fewer "social contacts" may select formal job search methods such as public employment agencies. In addition, as a reflection of the internet's prevalence, some human resource studies note the benefits of online job search. For instance, Feldman and Klaas (2002) examine the experiences of managers and professionals

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5) In this paper, "social networks" imply traditional networking through "friends or alumni" and "school or teacher," following earlier job search literatures. They are irrelevant to the recent networking method through various SNS services.

searching for jobs through the internet. They report that internet use for job search is perceived as less effective than personal networking, but much superior to searching for jobs through newspaper advertisements and “cold calling.”

Considering previous research, empirical questions on the match quality of internet job search are examined by comparisons with traditionally used formal search methods, separated from “referrals” or “social networks.” This study looks into the effect of internet job search on wages separately for the early 2000s and the late 2010s, analyzing newly employed workers’ samples. Firms can have more applications when using the internet for recruiting, thus increasing the possibility of getting better workers. Since the direct search cost is very low when using the internet, workers can also wait for, or search around more intensively to get, a better job offer. The result shows that workers successfully employed through internet search have a 5-7 percent wage premium in the early 2000s over those employed by traditional methods except referrals or social networks, even after the selectivity issue is addressed. This positive wage effect is prominent among women and previously unemployed workers, showing that the effects of internet search might not be equal for all workers. Then, the probability models of searching on the job and being terminated in the following year are estimated. While a good match will reduce a worker’s desire to get a better job, the lower cost of internet job search activity may increase the probability of searching other jobs. Workers with previous experience of internet job search may also tend to look for better employment opportunities. In the early 2000s, new employees who have ever searched online for a job are likely to search for other jobs, while the probability of leaving their current jobs is not different from that of non-internet searchers.

The remaining part of this paper proceeds as follows. Chapter 2

describes the data used in the research, focusing on the use of each job search method. Chapter 3 is devoted to analyzing internet search outcomes of unemployed workers and students using probability models. In Chapter 4, the match quality of internet job search is examined in terms of initial wages, subsequent wage growth, on-the-job search, and early termination. Chapter 5 summarizes and concludes the discussion.

## II. Data

The data used in this research are two sets of the Youth Panel, collected by the Korea Employment Information Service. The original panel (YP2001) ends in 2006, and a new panel (YP2007) starts in the following year. To examine job search outcomes in the early 2000s, five waves of YP2001 between 2001 and 2005 are exploited. The recent development in workers' job search outcomes is analyzed using the 9<sup>th</sup> through 12<sup>th</sup> waves of YP2007, spanning 2015 through 2018. Each panel is a longitudinal dataset, and initially surveyed young individuals aged 15-29 from around the country.<sup>6)</sup> Since the research focuses on labor market behaviors, the observations of continuing students not looking for a job are not included for analysis. The original sample from YP2007 is aged between 23 and 41 during 2015~2018, and the agency adds more sample under the age of 23 in the 9<sup>th</sup> wave and after. Thus, the observations with the age under 29 as of 2015 are included, making the YP2007 sample comparable to that of the YP2001. Using these two datasets, the job search trends in the early 2000s and the late 2010s would be

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6) The initial sample sizes in the first waves are 5,956 for the YP2001 and 10,206 for the YP2007, respectively. In this research, job seekers and new employees are only examined. Thus, students not seeking jobs, workers employed in the past, and persons not in the labor force are excluded from the research.



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The datasets have similar structures and questionnaires, but some variables are not matched with each other. The YP2001 asks two different questions related to efforts and activities in finding jobs. First, it asks all job seekers, "What kinds of activities do you do for (re)employment?" and suggests several activities for "yes" or "no" answers, including "post job seeking information on internet," "attend job fairs," "send resume to employers," "ask relatives/alumni/friends," "consult with public employment agency," and "consult with job placement teacher."<sup>7</sup> However, this information is collected only from current job seekers who are students or unemployed workers. Second, the survey also asks a traditional question about job search channels, "How do you get job opening information?," and gives choices of "internet or PC-communication," "school or teacher," "ads on newspaper or TV," "ads on local information magazine," "parents or relatives," "friends or alumni," "public employment agency," "private employment agency," "contact employers directly," "job fairs," "job training academy," "internship," and "other methods," up to three of which are chosen by job seekers. Unlike the first question, this one is also asked of all employed workers regarding their current jobs. Additionally, each interviewee needs to indicate the successful (or determinant) search method used to obtain his or her current job.

The YP2007 asks comparable questions related to a worker's job search but suggests more detailed activities and channels. To examine the results from these two datasets, some channels in the YP2007 are combined, thus making them comparable.<sup>8</sup> For this

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7) Other activities not directly related to the job search are also asked, such as "take occupational aptitude tests" and "take training for job interview."

8) For example, the question on job search methods in YP2001 suggests an option of "internet or PC-communication," while the YP2007 initially suggests the same option but recently separates it into two options, "internet (public

reason, some caution is needed when interpreting the estimation results from these two datasets. Thus, instead of comparing the size of effects or gaps, this paper focuses on the signs and their significance. Another difference in the YP2007 is that it does not ask the employed workers about the successful search method for their current job. Thus, some analyses would be done for the sample representing the early 2000s.

〈Table 1〉 Fraction of Job Seekers Using Each Job Search Method

	YP2001 (2001~2005)			YP2007 (2015~2018)		
	Student	Unempl.	New empl.	Student	Unempl.	New empl.
school or teacher	0.643	0.098	0.182	0.743	0.308	0.267
ads on newspaper or TV	0.298	0.339	0.214	0.449	0.163	0.106
ads on local info magazine	0.151	0.425	0.275	0.114	0.097	0.066
parents or relatives	0.146	0.201	0.218	0.028	0.102	0.066
friends or alumni	0.422	0.534	0.498	0.113	0.151	0.130
public employment agency	0.096	0.205	0.077	0.308	0.359	0.346
private employment agency	0.012	0.030	0.019	0.112	0.241	0.094
<b>internet or PC-comm</b>	<b>0.737</b>	<b>0.727</b>	<b>0.506</b>	<b>0.479</b>	<b>0.638</b>	<b>0.443</b>
contact employers directly	0.058	0.110	0.133	0.306	0.402	0.224
job fairs	0.077	0.061	0.038	0.292	0.441	0.305
job training academy	0.056	0.028	0.031	0.058	0.114	0.129
internship	0.065	0.004	0.025	0.085	0.054	0.031
Observations	677	809	2,761	971	569	3,753

Note: Calculated from YP2001 and YP2007. YP2007 collects the usage of 16 job search channels, some of which are combined to make them comparable with the results from YP2001.

Table 1 presents how frequently each job search method is used by students, unemployed job seekers, and employed workers (for their current job), respectively. The samples of students and unemployed

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website such as *WorkNet*)” and “privately managed website” (4<sup>th</sup>, 5<sup>th</sup>, 8<sup>th</sup> waves and after).

workers in the YP2001 are from 2001 through 2004 datasets and pooled restricting to individuals identifying themselves as job seekers. The samples include 677 students and 809 unemployed workers, and they are used for the estimation of the probability of getting employed one year later. The observations for the year 2005 and with missing values in the variables used in Table 3 are also excluded.<sup>9)</sup> The sample of employed workers includes only new employees who found their jobs after the previous year's survey, thus pooling 2,761 observations from 2002 through 2005. This sample is used for estimating initial wage premia and drops the observations with missing values in the control variables specified in Table 4. For the YP2007, the observations aged under or equal to 29 in 2015 are pooled across the indicated period after dropping observations with missing values, and the samples include 971 student job seekers, 569 unemployed workers and 3,753 newly employed workers.

Internet job search prevails in South Korea even in the early 2000s, as expected from the rapid growth of infrastructure and service users. As shown in Table 1, more than 70 percent of students and unemployed workers use the internet to look for job openings in the early 2000s.<sup>10)</sup> While the fractions are slightly smaller, similar trends are also found in the late 2010s. Another interesting finding is that student job seekers rely greatly on "school or teachers" in both samples, 64 percent and 74 percent respectively. In South Korea, many employers or recruiters tend to ask schools or teachers for referrals of well-qualified alumni on the job market, instead of advertising job vacancies in a formal way. This method may also

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9) Most missing values are from retrospective job search duration. Even if all observations with job search information for 2001-2005 are used, the fractions are very similar.

10) According to Kuhn and Skuterud (2004), the proportion of internet searchers is about 10 percent in the United States in 2000, although it is not restricted to young workers.

help recruiters acquire more credible information on job candidates - thereby reducing employers' uncertainty about worker productivity, which "social networks" or "employee referrals" do.

Workers' job search behavior can also be examined by using the questions asked of employed workers. Since the Youth Panel surveys individuals only once a year, a considerable proportion of workers not identified as job seekers end up getting new jobs in the following year. Thus, their search activities are only observed retrospectively in the employed workers' sample. As mentioned above, new employees with less than one year of tenure are included in the sample. The percentage of internet searchers in the new-employee sample is somewhat lower than that of students or unemployed workers in both datasets. In the early 2000s about 50 percent of new employees answered that they had searched online before getting their current jobs, while 44 percent answered so in the late 2010s. However, this proportion is still the highest among thirteen job search methods, along with "friends or alumni" in the early 2000s. Though not reported, a half of internet job searchers found their current jobs successfully through the internet. Similarly, a quarter of new employees report that "friends or alumni" was the determinant search method for their current jobs. About 10 percent of new employees successfully searched for their jobs by "school or teachers," and about 11 percent of them were employed by "parents or relatives."<sup>11)</sup>

Next two chapters are devoted for the analyses of probability models of being employed, doing on-the-job search, and leaving current jobs as well as wage regressions. While the probability models use the relevant indicator as the dependent variable, the wage regressions use the natural logarithm of real hourly wage. Those models are controlled for age,  $\text{age}^2/100$ , dummies for

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11) The information on successful search method is only available in the YP2001.

demographic characteristics (female and married), dummies for education level (college experience and college graduate), tenure in months,  $\text{tenure}^2/100$ , dummies for firm size (30-99, 100-499 and 500+), and dummies for year, region, occupation and industry. In some models, dummies for previous employment status (previously student and previously not working), and previous or wanted occupations are also controlled.

### III. Internet Job Search and Employment

In spite of rosy prospects on internet technology in searching for jobs, some earlier empirical evidence shows that internet job searchers do not have any advantage over job seekers not using this new technology (Kuhn and Skuterud, 2004). On the one hand, as some researchers suggest, job seekers who cannot search for jobs effectively using traditional methods may choose internet job search. On the other hand, internet job seekers are pickier and more likely to decline job offers, and thus their job search duration may be no different from that of job seekers using only traditional search methods. Based on prior studies such as Mortensen (1986) and Holzer (1988), the employment probability of a job seeker  $i$  can be written as follows:

$$\Pr(E_i|\mathbf{X}_i) = \sum_{j \in J} \Pr(E_i|S_{ij}, \mathbf{X}_i) \Pr(S_{ij}|\mathbf{X}_i) \quad (1)$$

where  $E_i$  indicates a job seeker  $i$ 's employment outcome,  $S_{ij}$  represents a job search method  $j$  used by  $i$ , and  $\mathbf{X}_i$  is a vector of individual characteristics. Following previous studies, the probability that each job search method leads to employment can be expressed by two probabilities as follows:

$$\Pr(E_i | S_{ij}, \mathbf{X}_i) = (1 - F(w_i^r)) \cdot O(A_{ij}(c_{ij}, q_i)) \quad (2)$$

where the first component,  $1 - F(w_i^r)$ , is the probability of acceptance. The assumptions that a job seeker accepts an offer if  $w \geq w^r$  and that the acceptance rate does not vary across job search methods are used here. In addition,  $F(\cdot)$  is the cumulative distribution function of wage offer and does not depend on individuals and job search methods. The second component,  $O_{ij}$ , is the probability of getting an offer. It is defined as a function of search intensity (for example, number of applications),  $A_{ij}$ , which is a decreasing function of direct search cost,  $c_{ij}$ , and a worker's quality unobserved to researchers,  $q_i$ .

The positive expectation of internet job search stems mainly from its effect on lowering direct search cost,  $c_{ij}$ , which determines  $i$ 's search intensity. Since internet technology enables job seekers to search more jobs in a given period, internet searchers may be more likely to get offers than others not using the internet. However, internet job openings will have more applicants per vacancy, and result in lower offer probability per application to job seekers. Table 2 shows that there exist quite different job search patterns between internet users and nonusers. The sample of YP2001 is restricted to new employees surveyed in 2005, since the related questions are not asked in earlier years.<sup>12)</sup> Internet job searchers send out more resumes to employers on average in both samples. In the YP2001, 60 percent of internet searchers have experienced a failure in getting offers after applications or job interviews, while only 28 percent of non-internet searchers have ever failed in getting an offer before signing their current employment contracts. Similarly, in the YP2007,

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12) For this reason, the information on search intensity cannot be included in the analysis of search outcomes.

<Table 2> Search Intensity of New Employees by Internet Use

	YP2001 (2005)				YP2007 (2015~2018)			
	N	mean	s.d.	t-stat	N	mean	s.d.	t-stat
<b>Internet Search (IS)=1</b>								
No. of searches (resumes sent or else)	303	5.71	11.87		1,650	4.63	7.92	
1 if ever failed in getting an offer	303	0.60	0.49		1,635	0.54	0.50	
No. of unsuccessful applications (conditional on ever failed=1)	181	5.54	7.25		877	4.80	8.42	
1 if ever declined an offer	303	0.40	0.49		1,635	0.25	0.43	
No. of declined offers (conditional on ever declined=1)	122	2.25	1.76		411	1.66	1.37	
<b>Internet Search (IS)=0</b>								
No. of searches (resumes sent or else)	395	1.76	4.40	6.08***	2,049	2.27	4.11	11.68***
1 if ever failed in getting an offer	395	0.28	0.45	8.76***	2,002	0.30	0.46	15.07***
No. of unsuccessful applications (conditional on ever failed=1)	112	3.29	4.65	2.92**	593	3.13	5.95	4.17***
1 if ever declined an offer	395	0.14	0.35	8.30***	2,002	0.13	0.34	9.47***
No. of declined offers (conditional on ever declined=1)	55	1.87	1.16	1.47	261	1.35	0.88	3.25**

Note: The questions are only available in the 2005 survey of YP2001, and the observations of employed workers who found a job during the past one-year period before the survey are used. The YP2007 asks these questions every year. However, 54 observations have missing values in search intensity variables, compared to the sample in Table 1. The t-statistics are computed for the group comparisons, (IS=1) vs. (IS=0).  
 \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

54 percent of internet searchers and 30 percent of non-internet searchers have experienced a failure in getting offers. Job offer rates might also be affected by a worker's quality,  $q_i$ , if recruiters

effectively screen out adversely selected workers.

Positive effects of internet use in finding a job may also not be clear in the data due to the difference in probability of declining an offer. As also shown in Table 2, 40 percent of internet searchers have declined offers, while only 14 percent of non-internet searchers have. The proportions are 25 percent and 13 percent in the YP2007 sample. Considering only workers with the experience of declining offers, the average number of declined offers of internet searchers is also greater than that of non-internet searchers. This finding implies that the reservation wage of internet searchers would be higher than that of non-internet searchers if the wage offer distribution does not vary across search methods, as specified in the equation (2).

These complicated characteristics of internet job search can make it difficult to estimate correctly the effects of this new technology on employment outcomes. As mentioned earlier, Kuhn and Skuterud (2004) also report that they cannot find any empirical evidence of its positive effects on employment duration. Table 3 briefly reports the estimation results of the probability model for both unemployed workers' and students' samples, in which the dependent variable is the indicator of whether a job seeker gets a job during the following year after each survey. In all estimates, basic demographics, years, regions, and previous occupations are controlled.<sup>13)</sup> Additionally, the retrospective job search period (months) and its squared term are also included for the unemployed workers' sample.

In the dataset, there is another variable related to internet use, "post/register job seeking information on internet," which is available only for this model.<sup>14)</sup> To capture the differences in

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13) The unemployed workers with no previous job records are categorized as a group for analysis. Although wanted occupations are used for the student sample, the results are not different from those without any occupation controls.

14) The question about activities of seeking a job is asked to job seekers.



employment probability, two types of internet use variables are used separately and together. Looking at the coefficients of the unemployed workers' sample, neither internet job search variable has any significant effect on the probability of becoming employed in the following year in the sample of YP2001. For the student job seekers' sample, the same result is obtained for the job seekers who use the internet to search for job information. However, as shown in columns (5) and (6), the students who post job-seeking information online are more likely to get a job during the following year. The probability is about 11 percentage points higher for students who actively post personal information on the website than for those who do not.<sup>15)</sup>

This result partly shows the positive influence of the internet for job seekers, especially in the early 2000s, although there might be concern about individual heterogeneity. Since some students looking for jobs may also consider alternative career paths instead of participating in the labor force, job seekers who actively post their information online may have stronger intentions of joining the labor force than others. In South Korea, many well-paying employers such as government and mass-communication companies recruit employees through various written and oral tests. Job seekers who take these examinations usually spend a couple of years in preparation after graduation, while at the same time trying to find other alternatives due to the competitiveness and uncertainty of test results. Thus, because more than 80 percent of observations in the

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15) Although access to the internet does not seem to be a barrier for young people in South Korea even in the early 2000s, additional regressions are estimated using the subsample of job seekers who utilize the internet to search for job information. The results confirm the previous findings. The unemployed sample does not show any significant difference in the employment probability and is not dependent on the posting of job seeking information online. However, students posting personal information on websites are about 12 percentage points more likely to be employed in the following year.

(Table 3) Probability of Getting Employed One Year Later

Job Search Method	YP2001 (2001~2005)				YP2007 (20015~2018)							
	Unemployed		Student		Unemployed		Student					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
internet or PC-comm	-0.019 (0.053)	-0.025 (0.055)	0.027 (0.058)	-0.017 (0.056)	0.245 (0.087)**	0.228 (0.089)*	0.015 (0.073)	0.011 (0.074)				
<b>Activities</b>												
post/register job seeking		0.022 (0.040)	0.022 (0.042)	0.105 (0.043)**	0.110 (0.045)**	0.054 (0.054)	0.043 (0.057)	0.050 (0.044)	0.059 (0.046)			
info on internet												
other methods controlled	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes
other activities controlled	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Log-likelihood	-482.8	-487.0	-479.1	-387.6	-380.5	-372.9	-365.8	-363.8	-354.6	-579.5	-563.0	-558.3
Pseudo-R <sup>2</sup>	0.083	0.075	0.090	0.074	0.091	0.109	0.072	0.077	0.101	0.070	0.096	0.104
Observations	809	809	809	677	677	677	569	569	569	971	971	971

Note: The table reports marginal effects (dF/dX) and robust standard errors in parentheses: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. Other "Job Search Methods" include school or teacher, ads on newspaper or TV, ads on local info magazine, parents or relatives, friends or alumni, public employment agency, private employment agency, contact employers directly, job fairs, job training academy, internship, and other methods. Other "Activities Related to Job Seeking" include attend job fairs, send resume to employers, ask relatives/alumni/friends, consult with public employment agency, and consult with job placement teacher for YP2001 and more activities for YP2007. All regressions are controlled for various demographic variables (age, age squared, college attended, college graduate, female, marital status, metropolitan city, year dummies, and fourteen region dummies). Previous occupations or wanted occupations are also controlled. Regressions for unemployed workers also include retrospective job search month and its squared term for YP2001.

samples are college students or graduate students, the sample might include a considerable number of students who think about other careers - thus resulting in a self-selection of posting personal information online.<sup>16)</sup> Unfortunately, this information cannot be identified in the data.

If the sample of YP2007 is used, the result is somewhat different. In the late 2010s, unemployed job seekers get some benefits from using internet. The internet users are 25 percentage points more likely to be employed within a year or so, as reported in the columns (7). However, the effects do not appear in the student job seekers' sample. This contrasting result could be an impact of the expansion of public employment websites such as *WorkNet*.

Additionally, the difference, observed in the early 2000s, between unemployed workers and students in the effect of posting personal information online may be related to the strong preference of firms toward new graduates in South Korea. The job markets for new graduates and experienced workers are separated. In the market for new graduates, workers spending one or more years unemployed are not preferred over those coming directly from school. Their lengthy unemployment spell may be a signal of their ability level or perceived by firms as having been screened out in the previous year's job market. Thus, firms may utilize this additional information on unemployed workers for screening.

#### **IV. Match Quality of New Jobs**

In the job search literature, match quality is related to the

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16) The percentage of students with higher education seems greater than usual, which is caused by the fact that many high school graduates need to serve in the army after graduation while most college students tend to fulfill their mandatory military service before graduation.

information on potential jobs and/or job candidates (Jovanovic, 1979; Simon and Warner, 1992). Jovanovic's labor turnover theory shows that a worker's productivity in a particular job is not known initially but becomes known more precisely as the worker's job tenure increases. However, many studies also pay attention to the possibility that referrals by current employees give more accurate information on workers' productivity to the employer and reduce screening costs, and that the jobs searched through social networks such as "friends or alumni" may yield higher wages at the initial career stage and longer tenures (Montgomery, 1991; Simon and Warner, 1992; Mortensen and Vishwanath, 1994).

Internet job search has a different aspect from job search through social networks. Firstly, internet job search is characterized by the possibility of shopping around a broader range of potential jobs. Its low cost enables a job seeker to search more jobs for a better offer. If this effect is dominant, the wages of internet job searchers would be higher than those of other job seekers, regardless of the successful methods leading current employment contracts. Similarly, the large pool of internet job seekers gives employers an opportunity to employ better-matched workers. These characteristics can result in higher wages for workers employed successfully through the internet. However, as Autor (2001) emphasizes, there exists the possibility of adverse selection, which requires more intense screening for employers to get better-matched workers. If employers could acquire more accurate information on candidates' productivity through internet recruiting or have effective methods to sort out workers by their quality, then there would be wage differences between workers employed through internet search and those employed through other methods. This wage gap by successful search method would exist even among internet job searchers. Lastly, in terms of labor turnover, the results of internet job search are more

ambiguous. Although the turnover theory says that well-matched jobs last longer, the low costs of internet job search may attract many employees to look for better jobs.

In this chapter, it is tested first whether the internet job seekers are paid more at the initial stage and compare the results between two periods. For the early 2000s, more importantly, an additional test is done to find the wage differences by successful search method, especially among internet job seekers. Next, the wage premium of internet job search is scrutinized by previous employment status and gender. Third, it is tested whether subsequent wage growth differs by the successful job search method. Lastly, it is also tested whether there is any difference among workers in the probability of on-the-job search and employment termination.

## 1. Initial Wage Premium

The influences of internet job search on workers' wages can be captured by two variables in the data. First, the wage difference between internet job searchers and nonusers of the internet is estimated by a conventional wage regression with a dummy variable indicating whether an employed worker has searched jobs online. If the extensive search of internet job seekers (thanks to its low cost) results in better offers, then the internet users would be more likely to be paid more than nonusers - regardless of the successful search method by which they become employed. Next, the question of successful search method for a worker's current job gives us another opportunity to examine wage variations by job search behavior. The wage difference can be interpreted as the difference in job or match quality. Since only one successful search method should be reported, the dummy variables related to "referrals" or "social networks" are also included in each regression using successful search methods, in order to separate out the well-known wage effects of "referrals" or

“social networks” and to compare wages by internet search directly with those by traditional formal search methods.

Table 4 reports the log wage regression results of new employees who are employed between two consecutive years’ surveys. The dependent variable is the natural logarithm of real hourly wage. The regression models include actual months on the job and their squared terms, as well as various demographic, occupation, and industry variables.<sup>17)</sup> Firm size dummies are also included to control for firm heterogeneity, because firm characteristics are a major source of wage variations.

In both YP2001 and YP2007 regressions, there is no significant wage premium for workers who search online to find job information, even after controlling for other job search methods used by workers. In the table 4, many well-known wage premia are found consistently with previous studies. For example, the firm size wage gaps and educational wage gaps are quite large and not different from prior empirical findings. The gender wage gap is also significant.

<Table 4> Initial Wage Premia of Used Search Methods

	<i>Dep. Var. = ln(real hourly wage)</i>			
	YP2001 (2001~2005)		YP2007 (2015~2018)	
	(1)	(2)	(3)	(4)
internet or PC-comm	0.026 (0.017)	0.015 (0.018)	-0.004 (0.010)	0.036 (0.024)
school or teacher		0.050 (0.030)		0.005 (0.015)
ads on newspaper/TV		-0.003 (0.019)		0.031 (0.019)
ads on info magazine		-0.058 (0.019)***		0.021 (0.018)
parents or relatives		-0.062 (0.019)***		-0.039 (0.019)*
friends or alumni		-0.014 (0.017)		0.002 (0.016)

17) The control variables not reported include occupation and industry dummies as well as year and region fixed effects.

public empl. agency	-0.083 (0.033)**		0.003 (0.011)	
private empl. agency	-0.028 (0.054)		-0.019 (0.014)	
contact directly	-0.027 (0.023)		-0.019 (0.018)	
job fairs	0.076 (0.045)*		-0.039 (0.020)*	
job training academy	-0.038 (0.065)		0.024 (0.015)	
internship	-0.143 (0.068)**		-0.028 (0.030)	
other methods	-0.029 (0.036)		-0.015 (0.035)	
firm size 30-99	0.091 (0.021)***	0.084 (0.021)***	0.095 (0.013)**	0.095 (0.013)**
firm size 100-499	0.140 (0.025)***	0.127 (0.025)***	0.110 (0.014)**	0.107 (0.014)**
firm size 500+	0.220 (0.030)***	0.202 (0.030)***	0.193 (0.019)**	0.191 (0.019)**
age	0.120 (0.031)***	0.124 (0.031)***	0.061 (0.024)*	0.060 (0.024)*
age <sup>2</sup> /100	-0.185 (0.062)***	-0.194 (0.063)***	-0.074 (0.048)	-0.070 (0.048)
some college expr.	0.068 (0.021)***	0.062 (0.021)***	0.008 (0.015)	0.004 (0.015)
college graduate	0.233 (0.025)***	0.218 (0.025)***	0.077 (0.015)**	0.073 (0.015)**
female	-0.120 (0.019)***	-0.119 (0.019)***	-0.072 (0.012)**	-0.070 (0.012)**
married	0.007 (0.026)	0.009 (0.026)	0.020 (0.026)	0.019 (0.026)
metro	0.177 (0.082)**	0.158 (0.083)*	0.013 (0.011)	0.010 (0.011)
previously student	-0.004 (0.023)	-0.025 (0.024)	-0.011 (0.014)	-0.014 (0.015)
previously not working	-0.078 (0.019)***	-0.075 (0.018)***	-0.051 (0.012)**	-0.049 (0.012)**
tenure (months)	0.014 (0.009)	0.015 (0.009)*	-0.001 (0.006)	-0.001 (0.006)
tenure <sup>2</sup> /100	-0.060 (0.061)	-0.072 (0.061)	0.037 (0.031)	0.035 (0.031)
Constant	6.481 (0.393)***	6.496 (0.396)***	3.608 (0.330)**	3.621 (0.330)**
R <sup>2</sup>	0.289	0.300	0.300	0.292
Observations	2,761	2,761	3,753	3,753

Note: Robust standard errors are reported in parentheses, \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. Dependent variable is the natural logarithm of real hourly wage. All regressions also include year, occupation, industry, and region dummies.

However, the story is quite different if the successful search methods are used for the regressions using the sample of new employees in the early 2000s.<sup>18)</sup> As shown in Table 5, the wages of jobs found successfully by internet search are 5 percent higher than those found by other traditional search methods except referrals, “school or teacher,” “parents or relatives,” and “friends or alumni,” as reported in the first column. These results imply that employers may effectively screen out workers with low match quality. Among referrals, workers employed through “school or teacher” earn 10 percent higher wages than those employed through traditional formal methods.

〈Table 5〉 Initial Wage Premia of Successful Search Methods

Successful search method for current job	YP2001 (2001~2005)		
	<i>Dep. Var.</i> = ln(real hourly wage)		
	OLS	internet search used = 1	Heckman MLE
	(3)	(4)	(5)
internet or PC-comm	0.051 (0.023)**	0.066 (0.031)**	0.062 (0.030)**
school or teacher	0.101 (0.031)***	0.050 (0.047)	0.051 (0.049)
parents or relatives	-0.024 (0.027)	-0.013 (0.054)	-0.017 (0.051)
friends or alumni	0.034 (0.024)	0.098 (0.043)**	0.102 (0.036)***
R <sup>2</sup>	0.293	0.249	
Observations	2,761	1,396	2,761

Note: Robust standard errors are reported in parentheses: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. The reference group of successful searches is all other methods except the reported ones. The regression models are equivalent to those in Table 4.

18) As mentioned earlier, the successful search methods are not asked in the YP2007 surveys.



To look at whether or not success in internet search makes any wage difference among internet job seekers, the wage premium is estimated using only the internet job searchers' sample. As reported in the second column, there still exists a significant wage premium against workers employed by traditional search methods, except using personal or social networks ("school or teacher," "parents or relatives," and "friends and alumni"). Considering the possibility of self-selection into internet search, a sample selection model is additionally estimated using the whole sample. The selection equation of internet job search is identified by including an additional dummy variable indicating the type of residence and by using past occupation dummies instead of current ones.

Specifically, the apartment/villa variable indicates whether a worker lives in an apartment/villa or resides in a single-family house.<sup>19)</sup> Apartments are usually preferred by people who desire a more convenient and modernized lifestyle. In addition, high-speed internet services are easily set up in apartments or townhome complexes, while residents in family houses sometimes experience technical difficulty in connecting or have fewer options among various providers.<sup>20)</sup> In the sample, 46 percent of workers live in an apartment/villa. The percentage of internet job searchers living in an apartment/villa is about 54 percent, while it is 6 percentage points lower for others.

The third column of Table 5 reports the maximum-likelihood

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19) A small-sized apartment or condominium is referred to as a villa in South Korea, while an apartment often indicates a type of high-storied building residence in a large-scale complex. Most of these residences are individually owned and rented like a single-family house. Officetel residents are also included in the apartment/villa category.

20) According to the National Internet Development Agency of Korea, about 10 percent of high-speed internet subscribers are using apartment LAN services in 2004. This implies that apartment residents have more alternative service providers.

estimation results of the selection model.<sup>21)</sup> Although not reported, the selection equation shows that the residents of apartments/villas are about 10 percentage points more likely to search online after controlling for various individual characteristics. It also shows that highly educated workers, and workers in metropolitan areas, are more likely to use internet job search, while married workers are less likely to search online. The estimated wage premium in the selection model is similar to those in the original regression. Both report that workers employed through internet search earn about 6-7 percent more than internet searchers employed by traditional methods except referrals or networks. Internet searchers eventually employed through “friends or alumni” also earn 10 percent higher wages, while the wage premium of “school or teachers” disappears.

## 2. Wages by Previous Employment Status and Gender

A worker’s job search strategy may vary by labor market status, and thus yield different outcomes. Workers who have previous job market experience may be more efficient in finding good jobs. Since the sample consists of young workers, all new employees can be separated into three major groups by employment status in the previous year. Roughly a third of new employees move directly from student status, and the rest are almost equally divided by whether or not they were working at the time of the previous year’s survey. Table 6 reports the coefficients of internet search variables estimated from each subsample. An interesting finding is that the wage premium of internet search is only significant in the sample of workers who were neither working in the previous year nor attending school. Even the wage of internet searchers is 7 percent

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21) Heckman’s two-step procedure gives a very similar result, which is available upon request.

higher than that of non-internet searchers in the early 2000s. The size of wage gap looks similar in the late 2010s, but the estimate is not statistically significant.

<Table 6> Initial Wage Premia of Internet Job Search by Worker Characteristics

	YP2001 (2001~2005)				YP2007
	Used	Successful			Used
		internet search		Heckman	
		used = 1		MLE	
	(1)	(2)	(3)	(4)	(5)
<b>Subsamples by Employment Status in the Previous Year</b>					
Student	-0.016 (0.036) N=809	0.038 (0.050) N=809	0.070 (0.073) N=414	0.067 (0.069) N=803	0.012 (0.043) N=1,259
Not Working	0.068 (0.033)** N=896	0.138 (0.039)*** N=896	0.111 (0.062)* N=454	0.104 (0.058)* N=893	0.060 (0.040) N=1,140
Employed	-0.021 (0.029) N=1,056	-0.022 (0.038) N=1,056	0.018 (0.045) N=528	0.015 (0.043) N=1,054	0.013 (0.041) N=1,354
<b>Subsamples by Gender</b>					
Male	-0.021 (0.026) N=1,282	0.009 (0.033) N=1,282	-0.001 (0.042) N=633	0.000 (0.041) N=1,275	-0.009 (0.042) N=1,753
Female	0.046 (0.026)* N=1,479	0.072 (0.032)** N=1,479	0.087 (0.046)* N=763	0.081 (0.045)* N=1,475	0.055 (0.029) N=2,000

Note: Robust standard errors are reported in parentheses: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. All regressions use the same specifications Tables 4 and 5. Thus, the estimates in column (1) imply the wage premia of internet searchers against nonusers, and those in other columns are wage premia against the workers whose successful search method is other traditional methods except "internet," "school or teacher," "friends or alumni," and "parents or relatives."

Workers successfully employed by internet search have about a 14-percent wage premium over those employed by traditional formal

search methods, and the size of the internet search premium decreased to 10 percent and turns out statistically insignificant once the sample selection is corrected. Job changers do not seem to benefit from new internet technology. Internet searchers who had different jobs in the previous survey do not earn higher wages than other job changers.

Job search strategy may also vary by gender, considering such things as the gender wage gap and job segregation. Employer preference or discrimination may lead to variations in job search strategy by gender.<sup>22)</sup> The second panel of Table 6 reports the coefficients of internet search variables separately estimated by gender. The effects of internet search differ by gender. While male workers do not benefit from internet search, female workers employed through internet search have at least a 7-percent wage premium over those employed by other traditional methods except referrals. This positive wage premium becomes insignificant if the sample is restricted to internet searchers or if the sample selection is addressed. Once again, the estimate using the YP2007 sample is not statistically significant.

These variations by labor market status and demographics in the effects of internet technology on job match outcomes imply that in the earlier days the introduction of internet technology may affect workers differently, depending on their status. Because the internet is likely to be more beneficial to job seekers with fewer social networks, or who are less efficient at searching for jobs, the new technology seems to play a positive role in the labor market of South Korea in the early 2000s.

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22) According to a recent news article, a third of large firms in South Korea still set male quotas when recruiting new employees, although the surveyed firms are limited (August 8, 2007, Dong-A Daily).

### 3. Subsequent Wage Growth of Stayers

Research on the effect of referrals or social networks on job match quality also reports that workers employed by those methods experience lower subsequent wage growth on the job (Simon and Warner, 1992). Although more accurate initial information on a worker's productivity yields a higher initial wage, referred workers may experience lower wage growth than non-referred workers, whose productivity is revealed to employers after they start to work. Employers' extensive search using the internet may lead to more accurate information on the relative productivity of job candidates on the market, resulting in a different wage growth rate of their employees.

Table 7 reports the wage growth regression results using the YP2001 sample, after controlling for the current wage level. The

⟨Table 7⟩ Subsequent Wage Growth of Job Stayers

Successful Search Method for Current Job	YP2001 (2001~2005)	
	<i>Dependent Variable</i> = Log Wage Difference	
	all workers (1)	internet searcher (2)
internet or PC-comm	0.033 (0.028)	0.038 (0.038)
school or teacher	0.049 (0.034)	0.027 (0.052)
parents or relatives	0.002 (0.039)	-0.043 (0.065)
friends or alumni	0.042 (0.029)	0.028 (0.045)
R <sup>2</sup>	0.496	0.559
Observations	1,000	553

Note: Robust standard errors are reported in parentheses: \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. Regressions use similar specifications with columns (3)-(4) in Table 5. Thus, the reference group is workers employed by other traditional methods except "internet," "school or teachers," "friends or alumni," and "parents or relatives." Additionally, current hourly wage level is also controlled.

dependent variable is the logarithm of the wage difference between the current survey and the following year's survey. Thus, only continuing workers who have the same job are considered for analysis. The same demographic and job characteristic variables for initial wage regressions are also used as controls. There is no significant effect of successful search method on subsequent wage growth rate, compared with other traditional methods not included in each regression. However, this result may be affected by short time span in measuring the wage growth rate. Since the YP2001 ends in 2006, a longer effect cannot be examined effectively.

#### 4. On-the-Job Search and Early Termination

Another way to examine workers' match quality is to look into whether workers try to find other employment opportunities and eventually make turnover decisions. As Jovanovic (1979) suggests, match quality is related to a worker's tenure. In other words, a good match lasts longer than a bad match. To address match quality in this respect, two probability models are estimated.

First, a worker who wants a better job will try to search other employment opportunities. Table 8 reports the estimation results of the probability model of searching on the job, where the dependent variable is the dummy indicating whether to search other jobs. If internet job search improves match quality, workers employed through internet job search might be less likely to search for other jobs. However, the lower costs of internet job search activity might increase the probability of searching for other jobs. In addition, workers with experience in internet job search may be more likely to search other jobs, since they are probably more efficient in terms of monetary cost and time consumption in searching jobs.<sup>23)</sup> For the

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23) There might be some non-linear effects, which are not examined here.

early 2000s, the first column shows that new employees who have ever searched online for their current job are 6 percentage points more likely to search for other jobs. Although the effect of the low cost of internet search seems dominant, the interpretation has some

〈Table 8〉 Probability Models of On-the-Job Search and Early Termination

	YP2001		YP2007	
	<i>Prob(On-the-job Search)</i> (1)	<i>Prob(Quit after a year)</i> (2)	<i>Prob(On-the-job Search)</i> (3)	<i>Prob(Quit after a year)</i> (4)
internet or PC-comm	0.060 (0.013)***	0.035 (0.028)	0.017 (0.009)*	0.024 (0.048)
school or teacher	-0.023 (0.016)	-0.076 (0.036)**	0.002 (0.005)	-0.003 (0.027)
ads on newspaper/TV	0.006 (0.014)	-0.037 (0.031)	0.002 (0.006)	0.034 (0.039)
ads on info magazine	0.009 (0.014)	0.007 (0.030)	0.013 (0.009)	-0.034 (0.039)
parents or relatives	-0.036 (0.013)***	0.003 (0.032)	0.010 (0.009)	0.020 (0.040)
friends or alumni	0.022 (0.013)*	0.017 (0.027)	0.002 (0.005)	0.015 (0.030)
public empl. agency	0.004 (0.022)	-0.063 (0.046)	-0.003 (0.003)	0.026 (0.022)
private empl. agency	0.054 (0.050)	-0.041 (0.089)	0.003 (0.006)	0.008 (0.035)
contact directly	0.001 (0.018)	-0.009 (0.037)	-0.003 (0.004)	0.012 (0.037)
job fairs	0.000 (0.033)	0.036 (0.066)	-0.003 (0.005)	-0.018 (0.040)
job training academy	0.029 (0.040)	-0.018 (0.071)	0.000 (0.004)	0.030 (0.030)
internship	0.067 (0.050)	-0.021 (0.080)	0.038 (0.019)*	0.126 (0.064)*
other methods	-0.030 (0.021)	-0.055 (0.048)	0.032 (0.023)	0.119 (0.076)
Log Likelihood	-923.8	-1,107.8	-367.8	-1,521.6
Pseudo R <sup>2</sup>	0.088	0.083	0.180	0.090
Observations	2,761	1,770	3,437	2,620

Note: Robust standard errors are reported in parentheses. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. Dependent variables are the indicator of searching another job by the employed and that of leaving current job within a year, respectively. All regressions include hourly wage and its squared term as well as the controls used by the previous regressions.

quality of a job might be realized after working more years. In this limitations because the sample includes new employees only. Match context, we also need to pay attention to the insignificant effect in the late 2010s reported in the column (3).

The second indicator of match quality associated with longer tenure is the probability of early termination. The second and fourth columns of Table 8 report the estimation results of the probability model using the dummy variable of being terminated (or leaving current jobs) within a year as the dependent variable. As reported, there is no significant effect of internet search on early termination. This result implies that on-the-job search activities are not directly related to termination of current employment. As noted above, a year might be too short to evaluate a job's match quality. Among other job search methods, the use of "school or teacher" is negatively related to job termination probability. Workers who have ever used it are 8 percentage points less likely to leave their current jobs in the early 2000s, but there is no difference in the recent days. This situation seems related to the fact that the majority of those workers were student job seekers.

## V. Discussion

The rapid transition of our economic life caused by the development of internet technology also accompanies changes of workers' activities in the labor market. Despite promising discussions on the consequences brought about by the new technology, there have been only a few studies examining its effects on labor market outcomes. This research not only finds empirical evidence of the positive wage effects of internet job search, but also shows that the wage effects may vary by workers' labor market status and other demographics such as gender in the early 2000s. The benefits of early



adoption of new technology seem to disappear, as the impacts of internet use in job search in the late 2010s are not apparent. While unemployed workers seem to have better opportunities of getting employed by using the internet, the wage effects are not observed.

There might be a tradeoff between shorter unemployment spells and higher wages. The low direct cost of internet job search might not shorten job search duration, but probably inspire workers to search and compare more job opportunities for better matches. The results from past and recent datasets might reflect the tradeoff, which would be worthy of a further study. To the extent that the use of internet technology is more beneficial to job seekers with fewer social networks or less efficiency in searching for jobs through traditional methods, the new technology would play a positive role in the labor market.

In that South Korea has a well-established networking infrastructure, and young people are very familiar with internet use, this research could suggest meaningful policy implications on the introduction of internet technology in the labor market, especially for policymakers of developing economies who witness the rapid development of internet technology.

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## 인터넷 구직 활동의 효과와 일자리의 질: 과거와 현재

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### 논문초록

컴퓨터와 인터넷 기술의 발전은 경제 생활에 많은 변화를 가져왔다. 이 연구는 2000년대 초반과 2010년대 후반에 인터넷 사용이 한국의 청년 노동자들의 구직 활동, 취업 및 일자리 질에 어떤 영향을 미쳤는가를 종합적으로 분석한다. 청년패널 자료를 활용하여 분석한 결과 인터넷 사용이 일년 후 취업에 미친 영향은 2000년대 초반에는 유의미하지 않은 반면, 2010년대 후반에는 실업 상태의 구직자들에게는 유의미하게 나타난다. 다른 한편으로, 신규 취업자 자료를 분석하면 2000년대 초반에 인터넷 사용이 결정적인 구직 방법이었던 취업자들에게 5~7%의 유의미한 임금 프리미엄이 존재한다. 이러한 양의 임금 효과는 여성과 취업 전에 실업 상태였던 사람들에게서 발견된다. 또한 과거 자료의 경우 인터넷 구직 활동 경험이 있는 신규 취업자들이 이직을 위해 다른 직장을 찾아보는 경향이 높게 나타나나, 실제로 일년 후에 이직하는 확률은 다르게 나타나지 않는다.

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