Studies show that the most frequently used public or private job search method among job seekers is checking with friends and relatives. This method also generates the most accepted jobs. Direct applications without referral and newspaper ads are also used relatively frequently. Less-skilled employees and minorities use the U.S. Employment Service (USES) more frequently than other groups, but even for these groups, only small fractions of all jobs found are accounted for by the USES. For employers, referrals from current employees and direct walk-ins are the most frequently used recruitment methods, and they generate the most hires. Again, the USES accounts for a very small fraction of those hired. The data clearly suggest that informal search methods are least costly and most effective for most employers and employees. It is also clear that minorities, women, and perhaps youth are disadvantaged when using the informal mechanisms. No specific reforms of the USES are endorsed. Options might be to strengthen other public mechanisms, such as school placement offices, by increasing the flow of information about local and national labor markets to these offices. However, this would provide no benefits to dropouts. Special instruction on the informal job search process (the writing of resumes and applications, the seeking of referrals, the interview process) in schools and training programs might be useful. (The document contains 2 data tables, 28 research notes, and 32 references.) (CML)
18. UTILIZATION OF PUBLIC AND PRIVATE JOB SEARCH MECHANISMS: THE EXPERIENCES OF EMPLOYERS AND EMPLOYEES

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Introduction

In this paper I will review the empirical literature on the use of public and private job search mechanisms by both employers and employees. The mechanisms among which potential employees choose include the United States Employment Service (ES), community agencies, private agencies, and newspaper ads, as well as more informal mechanisms such as direct walk-in (without referral) and checking with friends and relatives. Employers face the same set of mechanisms as they recruit applicants for available jobs, as well as obtaining referrals from current employees.

We will be concerned with the extent to which employers and employees use each of these mechanisms, as well as the effectiveness of each in producing successful job matches when used. Given that different mechanisms will be most appropriate for different firms, jobs, and prospective employees, we must consider how use and effectiveness vary across different groups of firms and individuals. Any policy prescriptions which we derive must take such variations into account.

The rest of this paper is laid out as follows: Section I includes an overview of the different mechanisms involved and general descriptions of their prospective costs and benefits to employers and employees. An economic framework for analyzing these mechanisms will also be discussed. Section II then reviews the available evidence on
use and effectiveness of these mechanisms for employees and employers. Section III contains conclusions and implications for policy of this work.

I. Search Mechanisms Used by Employers and Employees: An Overview

When prospective employees are searching for work, many start by asking friends and relatives about their knowledge of available openings, especially where the latter work. It is virtually costless for the jobseekers to do so, and they often obtain valuable information about available jobs which they might otherwise never hear about. In a world in which jobs are very heterogeneous in terms of wages, nonwage characteristics, skill requirements, etc., information about these job characteristics from those already working there may be very useful for an employee who is considering filing a job application. If the job seems appealing, obtaining a recommendation from a current employee could be particularly valuable when applying for the job.¹

Of course, most jobseekers do not limit themselves to talking with friends and relatives as they pursue work. Some apply directly to firms without obtaining referrals from employees there. This is particularly likely if the jobseekers have either called or visited the prospective employer and have found out about available jobs there for which they might be qualified.

Other methods of search are more formal and often involve mechanisms or institutions that act as labor market intermediaries.² For instance, checking newspapers for help-wanted ads is low in cost and often provides listings for employers seeking specific skills that the
jobseeker might have. Registering with the public Employment Service (ES) is also quite costless and is generally required of Unemployment Insurance (UI) recipients. However, many jobseekers do not use the Service in the belief that it primarily provides listings for the less-skilled and that they can find more appealing jobs through other means. These other means often include private employment agencies for professional and managerial workers; school placement offices for students planning to enter these areas; labor unions for those who are union members in particular crafts; and community agencies for others. Once an offer is received from any of the mechanisms, the jobseeker can choose between accepting or rejecting it based on its wage and nonwage characteristics and other available opportunities.

Employers who are trying to fill an available position must similarly decide among these mechanisms in order to generate an appropriate number of job applicants, who are then screened in a variety of ways before offers are made. Employers are concerned about the quality of such applicants as well as the quantity, and want a number that will be high enough to ensure the hiring of qualified employees but not so high as to generate excessive screening costs.

To meet these aims, some employers solicit referrals from current employees, believing that these employees will care enough about their reputations to only refer trustworthy applicants (who are in many ways like themselves). It is also virtually costless for the employer to accept applications from walk-ins, though there is no pre-screening for the applicants. This makes particular sense for large employers who are well known to local residents (thereby generating many walk-ins), whose
jobs do not require particularly high skills, and where turnover is large enough so that a stock of available applicants can reduce job vacancy rates. Posting help-wanted signs may also help to generate such walk-ins for high-turnover, high-vacancy firms.

Among more formal mechanisms for employers, listing openings with the Employment Service is another relatively costless way of generating applicants. However, many employers seem to feel that these applicants are often not serious prospects. For one thing, at least some workers who have registered with the Employment Service do so only because this is often a requirement for UI recipiency (in most states) and not because they are seriously interested in obtaining new employment right away.7 Furthermore, the Service has come to be stigmatized in the eyes of many employers as a "last resort" referral source of primarily low-skilled applicants. In fact, some have claimed that the ES office staff does insufficient pre-screening of the referrals which they make, and that their goal is to maximize employment of the low-skilled rather than provide appropriate matches between employers and employees.8 On the other hand, employers seeking a reliable and low-cost source of applicants in terms of numbers may still find the ES useful.

For employers seeking employees with more specialized skills, more costly mechanisms might be used to generate high quality applicants. These include the placement of ads in newspapers or professional journals, listings with private employment agencies, recruitment on college campuses, etc.

Another consideration for many employers who are government contractors is the need to generate a sufficient number of qualified applicants in terms of numbers may still find the ES useful.
female and minority applicants so as to meet their goals and timetables under "Affirmative Action" provisions. Informal mechanisms such as employee referrals or direct walk-ins may not be good mechanisms for doing so if current employees are primarily white males or if the local neighborhood is primarily white. More effective mechanisms for doing so may include use of the ES, ads in newspapers, and listing openings with community agencies (such as the Urban League).  

Finally, we note that some unionized firms (especially construction contractors) simply rely on the union to generate employees who are trained and certified.  

While the particular characteristics of each search mechanism are quite unique, a number of generalizations about the choice process can be made which have enabled economists to formalize this process in search models. In particular, Holzer (1988) has modeled the employee's choice between various search methods, while Barron et al. (1985) and Holzer (1987) have done so on the employer side.

The employee model of search method choice suggests that, for any particular individual, an investment of time or money in any particular search method will have some effect on his probability of receiving an offer with particular wage and nonwage characteristics. Each individual therefore chooses how much to invest in each method in order to balance these costs and expected benefits.

The costs of each method, as well as its potential effects on offers and job characteristics, will vary across individuals. For instance, those living further away from attractive firms may find the mechanism of direct walk-in more costly, especially if transportation is a problem. Those with employed friends and relatives may find this
mechanism more useful than those in poor neighborhoods or welfare households where fewer friends and relatives can provide useful contracts. Furthermore, the choices of employers about which recruiting mechanisms to use will often help to determine the usefulness of each for an employee with certain skills and training who is interested in a particular occupation or industry. Thus, low-skill employees may find the public ES worthwhile while high-skill employees choose private agencies and the like. Finally, an individual's overall level of interest in employment will generally reflect his skills, his need for income, other potential sources of income, etc., and will help to determine his use of any of the available methods.

A somewhat related set of concerns influence employers' choices among these methods. Employers must balance the costs of using each mechanism (in terms of direct monetary costs and personnel hours) against the expected benefits of filling vacant jobs with qualified personnel. The skill requirements of different jobs will have large effects on the appropriate mechanisms to use, as will the characteristics of the labor force and the reputation of the firm in the local area. For a given general level of skill required, firms must make long-term choices about using high wages, intensive training, or aggressive recruiting to attract (and retain) qualified employees.11 Given the wage and training options chosen, the short-term recruitment decisions may be particularly important (especially for high-wage employees and/or those in whom a fair amount of training is invested).12

"Extensive" vs. "intensive" strategies (i.e., those involving many or
few applicants) with regards to recruitment and screening must also be
chosen and will heavily influence the choice among methods of search.

Both employee and employer models therefore help to generate
predictions about who will use different search mechanisms based on what
is likely to be effective for different groups. We now turn to the
empirical evidence on these issues to see whether the descriptions above
and predictions of these models are borne out.

II. Empirical Evidence on Use and Effectiveness of Search Mechanisms

A. Employees

Over the years, a number of studies have been done on the methods
used by employees while searching for work. Some (e.g., Reynolds
(1951), Rees and Schultz (1970), Granovetter (1974)) use data generated
by their own surveys of workers in a particular local labor market.
More recently, several of the large micro datasets based on survey data
which are regularly used by labor economists have incorporated questions
on employee search methods that have been studied by many authors.

The questions used in different surveys often vary in terms of
samples, formats, and basic wording. For instance, some questions focus
on current/recent jobseekers and attempt to elicit all methods of search
used within a specified period, such as the last month. These studies
often target the current/recently unemployed and can have the
disadvantage of underrepresenting the jobseekers who have successfully
completed their searches.¹³ But only by including the latter
individuals can questions be included on which methods generated offers

999
and which were accepted, from which we can infer the relative effectiveness of different methods.\textsuperscript{14}

Alternatively, other surveys have questions which ask a random sample of employees about the methods they used while seeking their current/most recent jobs, and which actually led to the job which they accepted. If limited to the currently employed, those surveys will underrepresent less successful jobseekers who are currently unemployed. Results from other datasets, which focus particularly on young workers or heads of households and their spouses, cannot always be extrapolated to the rest of the labor force.\textsuperscript{15}

Despite these differences across surveys, several findings have emerged from this literature which appear in virtually all of the datasets and studies described here. To illustrate these findings, I present data in Table 1 on the use and effectiveness of various search methods from a special Department of Labor survey of 2,000 people in 1974.\textsuperscript{16} I use these particular data because they are probably the most broadly representative of the overall labor force, and because the results seem to be consistent with more recent data from a variety of surveys. Where needed, we will refer to these other data below.

In Table 1, we find the fractions of all jobseekers who have used each of several methods of search. We then find the fraction who obtained a job through each method, and the success rate for each method (i.e., the fraction successfully finding a job of all who used the method).
The results show that the two informal methods of search - i.e., checking with friends/relatives and direct application are the most frequently used and the most effective methods of job search. Each method is used by two-thirds or more of all job-seekers; and each accounts for about 30% of all jobs obtained.\textsuperscript{17} The success rate for use of friends and relatives is particularly high relative to all other methods. If anything, the fraction of all jobs found through friends and relatives is even higher in other studies, reaching 50% or more in some cases.\textsuperscript{18}

Furthermore, a number of studies indicate that the matches of employers and employees generated through friends and relatives are often the most successful. For instance, Holzer (1988) finds that these offers are the least likely to be rejected by the job applicant. A number of authors (e.g., Reid (1972), Breaugh (1981), Schwab (1982), Datcher (1983), and Taylor and Schmidt (1983)) find lower employee turnover rates out of these jobs than out of those generated by other mechanisms. Granovetter (1974) similarly finds that those hired through such referrals expressed higher job satisfaction. Some evidence of lower absenteeism (Breaugh, Taylor and Schmidt) has also been found for such individuals.\textsuperscript{19} These studies thus seem to confirm the impression stated above that this mechanism provides trustworthy information and reasonable expectations about each other to both sides of the labor market.

Turning now to other methods of search, we find that newspaper ads are the next most frequently used and effective method, with a fairly high success rate. Together, the informal methods and newspaper ads
account for about 78% of all hires, and all other methods account for fairly small fractions.

Among these, public and private employment services account for about 6% each of all hires. The rate of use for private agencies is relatively low but their success rate among users is quite high, as might be expected for a high-cost method used primarily by professional and managerial employees. The ES is used relatively frequently (28% of all jobseekers) but has the lowest success rate of any method. In part, this last finding may be due to job search requirements which often require UI recipients to register with the ES. However, the low fraction of all jobs obtained through this method suggests that other factors might limit the efficiency of the ES as well. Furthermore, Taylor and Schmidt (1983) find low job tenure (or high turnover) and low job attendance (or high absenteeism) for employees hired from this mechanism.

Of course, there is variation across occupations, industries, and demographic groups in the use and effectiveness of these methods. By age group, Bradshaw's (1971) analysis of unemployed workers in the CPS shows less use of virtually all methods except direct application by the young. This lower search intensity overall seems to indicate either a lower cost of being unemployed to this group or perhaps their interest in a set of jobs where direct application is relatively more beneficial than among the broader range of jobs sought by adults. Holzer's (1988) findings on youth suggest similar overall patterns on both use and effectiveness to those appearing in Table 1.
Some clearer differences emerge when comparing black and white job seekers. Bradshaw finds a higher use of the ES (e.g., 41% for black males and 31% for white males in 1970) and lower uses of private agencies, newspapers, and direct application among blacks. These fractions are quite consistent with more recent data from the CPS as well. Holzer (1987) finds a bit lower frequency of use for each method within a specified month among unemployed young black males (ages 16 through 23) than white males. But the fractions receiving and/or accepting job offers when using these methods differ greatly. In particular, young blacks appear to be relatively less disadvantaged when using the ES and other formal mechanisms and much more disadvantaged with the informal methods, especially direct applications.

In fact, the monthly probability of obtaining employment through the ES was comparable or even a bit higher for blacks, which was true of no other method. Still, the fraction of jobs so obtained was under 5% for young black males and about 3% for young white males. In contrast, approximately 70% of young whites and 60% of young blacks achieve their jobs through the two informal methods; and disadvantages for blacks in the use of these two methods accounts for about 90% of the overall difference in rates of job-finding between the two groups.

The greater problems for blacks when using informal methods seem to reflect the greater role for subjective employer judgments and for family/neighborhood connections in the use of these methods, which will presumably disadvantage blacks. More formal procedures leave less room for these subjective factors, and the ES in particular may provide compensatory help for the black jobseeker. Still, the far lower role
played by this method in our economy makes its usefulness for blacks rather limited.

Other differences appear in use of search methods by education and occupation. As might be expected, Corcoran et al., (1980) find fewer people who report having obtained jobs through friends and relatives among college-educated and/or professional/manager employees. Bradshaw also finds lower use of the ES and of direct applications for these employees but higher use of newspaper ads and private agencies, which target employees with more specialized skills. The Department of Labor study on which Table 1 is based also finds more clerical/sales workers obtaining jobs through the ES.

By industry, Bradshaw's summaries of CPS data show higher use of the ES by jobseekers who had worked in manufacturing but lower use by those in wholesale/retail trade and services. The latter, in particular, relied more heavily on newspaper ads, especially if their occupations were white-collar. Construction workers, on the other hand, used all of these methods less frequently and relied instead on their union locals for placement. But as the fraction of the construction industry that is unionized has declined rather dramatically in the last two decades, this generalization may no longer hold today.

Finally, we note variations in ES performance by size of office and/or area served (which are often correlated), such as urban vs suburban. Rees and Schultz find greater perceived effectiveness (by employers) in suburban areas, while the Department of Labor (1976) notes lower fractions of jobs listed but higher placement rates in smaller
offices and areas. However, the available evidence in this issue remains quite limited.

Before concluding this section, we note that other analyses of the ES have not been uniformly negative. For instance, Sheppard and Belitsky (1965) find that 38% of those registered with the ES were referred to employers, and job-finding rates among those referred were substantially higher than among the non-referred (88% v. 64%). These findings have been confirmed by Johnson et al., (1985) for women, though not for men. Several more recent studies (e.g., Stevens (1979), Fairchild (1983)) have developed more careful procedures for analyzing ES performance and/or have recommended reforms designed to improve that performance. Experimental reforms in various states (e.g., instruction in general job search activities, providing results of aptitude tests to employers, and stationing services in public assistance centers) also show some potential at least for improving ES performance (Bandick, 1989).

It is unclear how various economic changes that have been occurring and will continue into the 1990's will affect the observed performance of the ES. As overall skill levels in the economy rise, even the more positive studies of the ES which were done to date may be less relevant for tomorrow's jobseekers. But in sectors and areas where labor shortages are growing (due to economic growth and the "Baby Bust"), there is at least a potential for the ES to play a more positive role. Unfortunately, there has been little analysis to date of how local or aggregate labor market conditions influence the use and effectiveness of the ES (or other search methods).
It is also important to note that the observed differences in outcomes between individuals who use different search methods might simply reflect the different characteristics of those individuals rather than the effects of the methods themselves. For instance, the low success rates and weak performance on the job of those who use the ES might occur because individuals with lower skills and/or work attachments use this method disproportionately, finding it to be among their best options, while those with better skills and work attachments use other methods which they find more useful. Thus the effects of different methods are not observed on randomly selected individuals. It is quite possible that the changes in the procedures and services performed by the ES, or even its replacement by other services, would produce few observed changes in the outcomes of the individuals who use it. However, the extent to which this is true cannot really be ascertained with any degree of certainty from the data described above.21

B. Employers

In this section, we consider data on the use and effectiveness of various search (or recruiting) mechanisms for employers. Obviously, the data on effectiveness for employers cannot be too much different from those for employees, since the job matches being considered encompass both sides. Still, some extra information can be gained by judging the employer side independently, since their recruitment decisions often help to determine what prospective employers will or will not find effective.
In Table 2 we consider data on the use of search methods that are drawn from the same Department of Labor study that was considered earlier (see Footnote 16). The study encompassed the behavior of about 600 firms in medium-sized cities in 1974. Other studies will also be referenced below in the discussion of these results.

In Table 2 we find the fraction of all employers who use each recruiting method and the fraction who have hired at least one worker in the last six months of 1974 for this method. The third column provides the success rate, or fraction of users hiring at least one person (i.e., Col. 1/Col. 2).

The results show employee referrals to be the most frequently used method of recruiting, and the one which generates the highest fraction of new hires. Newspaper ads are second in both categories, though direct application would clearly be higher if combined with gate hires. These results overall are very consistent with those presented in Holzer (1987a) from a different employer survey. The relative rankings are also consistent with those that have appeared in surveys of executives administered by the Bureau of National Affairs, though the magnitudes are generally much larger in the latter. These discrepancies, however, appear to be caused by the non-representative nature of the sample and style of question used in the latter survey. We also note the generally high success rates from using employee referrals and newspapers.

As for the ES, we find 27% of all employers using it and 14% reporting at least one hire in the last six months. The relatively high fraction of hires attributed to the ES, compared to the numbers
suggested by data on employees, seems to represent the fact that many ES users are large firms who have done multiple hiring. In fact, these firms represent 36% of all job vacancies in the period covered by the Survey (though only a small fraction of these vacancies are actually listed with the ES). As a fraction of all recent hires (rather than the fraction of firms who have hired at least one worker), the ES appears to account for only about 3% (Holzer 1987a), which is more consistent with evidence presented earlier on employees.24

We also see from Table 2 that other recruiting methods are used far less frequently than those discussed above, and fewer firms actually have acquired new employees by using them. We do note, however, the high success rates for those who use private agencies (as well as for unions).

There is substantial variation across firms and jobs in recruiting method use, and most of the evidence here is consistent with what was observed for employees. For jobs requiring college degrees, we find less use of referrals and more use of newspaper ads (Holzer, 1987a). A similar finding occurs for professional, technical, and managerial jobs, where greater use is made of private agencies as well as newspaper ads and less use is made of the ES (Department of Labor, 1976; Bureau of National Affairs, 1979). For clerical workers, a broad range of formal and informal mechanisms are used, while for salespeople there is greater reliance on ads, private agencies, and employee referrals. For less-skilled blue-collar jobs, on the other hand, there is greater use of the ES as well as emphasis of referrals and walk-ins.
By industry, we find large firms, especially in manufacturing, making the most use of the ES and of walk-ins, and the least use of advertising (Holzer, 1987a; Bureau of National Affairs, 1979). These are the firms most likely to need a steady flow of applicants for unskilled positions. Some parts of the retail trade and service sectors are particularly likely to make heavy use of the ES, such as restaurants, hospitals, hotels/motels, service stations, and other business/personal services (Department of Labor, 1978). Firms providing financial and professional services, on the other hand, make greater use of ads. Even controlling for both education and industry, firms filling higher-wage jobs are more likely to use employee referrals and less likely to use walk-ins or the ES (Holzer, 1987a), from which the information about the job applicant is considered less available and/or trustworthy.

Finally, we note that firms with Affirmative Action plans for the hiring and promotion of minorities and women are likely to rely more heavily on other recruiting mechanisms to achieve these goals. Managers consider newspaper ads "most effective" for the hiring of women and community agencies for the hiring of minorities (Bureau of National Affairs, 1979). Some firms also mention the ES as an effective means of obtaining minorities.25

In addition to these data on the use and effectiveness of hiring through different recruitment methods, there has been some evidence as well of the quality of the matches generated by these methods. Above we noted the apparently lower rates of turnover and absenteeism of those
hired through friends and relatives, while the opposite appears to be true of those from the ES.

There is additional evidence on this issue from employer survey data on job performance and other characteristics of workers hired. In particular, the Employment Opportunity Pilot Project (EOPP) Survey of Employers in 1980 and 1982 asked employers to rate the performance of their worst recently hired employee on a 0 - to - 100 scale for several specified points in time. Bishop et al., (1983) and Holzer (1987a) found somewhat higher performance ratings for those hired through employee referral. But, in addition, these employees are less likely to be young and/or female than are those hired through other means (Holzer, 1987a). These findings strongly suggest that recruiting mechanisms which are most cost-effective from the employer's point of view may entail disadvantages for specific groups of employees who may suffer from fewer "connections" or biased employer perceptions. Specific governmental efforts to aid these groups in the hiring process might therefore be justified on equity grounds.

We note, again, that evaluations of the ES (this time among employers) have not been uniformly negative. The Department of Labor (1976) study reports that the majority of ES users among employers are satisfied with the referrals received, while most non-users feel only that they do not need the ES. Most of the latter have, in fact, never used it. This indicates that low usage of the ES may not reflect negative perceptions so much as a more general belief that other methods of search are preferable, given their particular needs.
III. Conclusions and Policy Implications

The evidence discussed in the preceding pages shows that checking with friends and relatives is the most frequently used search method among job seekers, and also the one which generates the most accepted jobs. Direct applications without referral and newspaper ads are also used relatively frequently, while the Employment Service (ES) generates employment for just a small fraction of job seekers. More highly-skilled employers rely more heavily on ads and private agencies, while less-skilled employees and minorities use the ES more frequently. But even among the latter groups, only small fractions of all jobs found are accounted for by the ES.

Data from employer surveys confirm these findings. Referrals from current employees and direct walk-ins are the most frequently used recruitment methods, and they generate the most hires. Newspaper ads and private agencies are costlier for the firm but quite effective for jobs requiring specific skills, while direct walk-ins and the ES are more useful for large employers seeking a steady stream of applicants to fill unskilled positions. But, again, the ES accounts for a very small fraction of those hired.

There was other evidence of lower turnover, lower absenteeism, and higher performance ratings of employees hired through their friends and relatives. The opposite was frequently the case for those hired through the ES. There was also some very limited evidence of greater ES effectiveness in smaller and/or suburban offices than in larger urban ones.
These data clearly suggest that informal search methods are least costly and most effective for most employers and employees, and that private formal mechanisms (i.e., newspaper ads and agencies) work well for skilled workers and jobs. However, it is also clear that minorities, women, and perhaps the young are disadvantaged when using the informal mechanisms.

This suggests the need for policies designed to counteract the problems which these groups face in the search process. To date, the ES does not appear to be a very effective means of doing so. However, it is unclear from the evidence reviewed here whether this is due to the deficiencies of the ES or to the characteristics of those who choose to use it. Furthermore, it is difficult to know how the secular economic changes of the 1980s and 1990s (e.g., rising demand for skilled labor, shortages of workers in some sectors and areas due to economic growth and the "Baby Bust", etc.) will affect the potential or actual role of the ES. Also, it is unclear why state employment services in other OECD countries play so much greater roles in the labor market than they do in the U.S., handling roughly 20-40% of job vacancies and placements in many cases (Roper, 1986). Perhaps the greater tradition of private, decentralized labor markets in the U.S. (as well as a greater diversity in characteristics and needs of employees and employers) explains the relatively greater reliance on private networks and agencies here, though this is clearly speculative.

Given these uncertainties, it is difficult to endorse specific reforms in the ES with any degree of confidence (though others who have studied the institution in greater detail might do so). Proposed
changes run the gamut from strengthening search requirements for UI recipients to eliminating them; or from tightening the screening process for referrals to expanding the services provided to the least skilled and employable registrants. Some experimental state programs have shown a potential role for general job search instruction for registrants and aptitude testing (with results provided to employers). But the low usage and success rates of the ES to date suggest that there may be limited scope for improvement, at least without dramatic and well-publicized changes.

Alternatively, others suggest eliminating the ES altogether and spending these resources in some other manner in the labor market. But if the ES is supplemented or even replaced by alternative policy mechanisms, these should benefit disadvantaged groups at least as much as does the ES currently. Given the overwhelming importance of informal job search in the U.S. labor market, as well as the problems which disadvantaged groups clearly show in this process, it is sensible that any efforts to aid these groups should focus on this process.

Unfortunately, the ability of government policy to influence private employer perceptions and employee networks is limited. But, a few possibilities do exist. One option might be to strengthen other public mechanisms, such as school placement offices, which are less stigmatized than is the ES (since they could service people with a broader range of skills) but which could direct more resources to the placements of the disadvantaged groups. Increasing the flow of information about local and national labor markets to these offices might be particularly useful. Of course, such a mechanism would
provide no benefits to those who are already non-enrolled. Special instruction on the informal job search process (e.g., the writing of resumes and applications, the seeking of referrals, the interview process, etc.) in schools and/or training programs might be useful as well for those who currently do not use this process effectively.
**TABLE 1**

SEARCH METHOD USE AND EFFECTIVENESS FOR EMPLOYEES

<table>
<thead>
<tr>
<th>Search Method Used</th>
<th>Overall Used</th>
<th>Hired</th>
<th>Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPLOYMENT SERVICE</td>
<td>27.6%</td>
<td>5.6%</td>
<td>20.3%</td>
</tr>
<tr>
<td>Private Agency</td>
<td>14.5</td>
<td>5.6</td>
<td>38.6</td>
</tr>
<tr>
<td>Employer direct</td>
<td>82.1</td>
<td>29.8</td>
<td>36.3</td>
</tr>
<tr>
<td>Looked at want ads</td>
<td>62.5</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>(Answered ads)</td>
<td>47.5</td>
<td>16.6</td>
<td>34.9</td>
</tr>
<tr>
<td>Labor unions</td>
<td>6.2</td>
<td>1.4</td>
<td>22.5</td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>65.0</td>
<td>30.7</td>
<td>47.2</td>
</tr>
<tr>
<td>Business associates</td>
<td>33.1</td>
<td>3.3</td>
<td>9.9</td>
</tr>
<tr>
<td>Community organization</td>
<td>1.6</td>
<td>.35</td>
<td>21.9</td>
</tr>
<tr>
<td>School placement</td>
<td>10.9</td>
<td>3.0</td>
<td>27.5</td>
</tr>
<tr>
<td>Professional journal</td>
<td>6.4</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Search Method Used</th>
<th>Overall</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Used</td>
<td>Hired</td>
</tr>
<tr>
<td>Employees</td>
<td>54%</td>
<td>32.5%</td>
</tr>
<tr>
<td>Newspapers</td>
<td>45</td>
<td>29.0%</td>
</tr>
<tr>
<td>Gate Hires</td>
<td>37</td>
<td>23</td>
</tr>
<tr>
<td>Applications</td>
<td>34</td>
<td>16</td>
</tr>
<tr>
<td>Business Associates</td>
<td>27.5</td>
<td>11.5%</td>
</tr>
<tr>
<td>State ES</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>School Placement</td>
<td>15</td>
<td>7.6%</td>
</tr>
<tr>
<td>Private Agency</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Community/Welfare</td>
<td>8.2</td>
<td>2.3%</td>
</tr>
<tr>
<td>Labor Unions</td>
<td>4.6</td>
<td>4.6%</td>
</tr>
<tr>
<td>All Other</td>
<td>2.7</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

NOTES

1. See, for instance, Reynolds (1951) or Rees (1966).

2. The distinction between formal and informal mechanisms was stressed by Rees (1966). Others (e.g., Barron and Gilley (1981), Chirinko (1982)) have distinguished "self-directed" methods such as friends/relatives and newspaper ads from "indirect" ones (e.g., public and private employment agencies).

3. The United States Employment Service consists of some 2400 offices nationwide. Registration is generally free for unemployed workers, as is the listing of openings and receipt of referrals for employers.

4. See, for example, Reynolds (1951), Rees and Schultz (1970), or the U.S. Department of Labor (1976).

5. See Barron et al., (1985) for a discussion of "extensive" (i.e. many applicants with little screening) or "intensive" (i.e. few applicants and more screening) strategies and the use of applicant backlogs to fill specific vacancies.


7. See, for instance, Rees and Schultz (1970). A large literature also documents the fact that UI recipiency limits returns to employment while unemployed individuals remain eligible to receive it - see, for instance, Katz and Meyer (1987).

8. Rees and Schultz op. cit.

10 Other industries in which union referrals are important include trucking and longshoring.

11 While the Personnel/Human Resources literature has long recognized that firms might choose to pay high wages in order to lower the costs of hiring and training, this notion has only recently been formalized by economists in "Efficiency Wage" models. See Yellen (1984).

12 This discussion suggests that wage and training costs may be viewed either as "complements" or as "substitutes". While there may be some margin for substitution between them, the prospect of paying high wages for other reasons over long periods may or may not induce the employer to invest more heavily in such training.

13 For instance, questions on search methods used in the monthly household surveys of the Current Population Survey (CPS) are based only on a sample of currently employed workers. In contrast, questions in the National Longitudinal Survey (NLS) have been asked of all workers who report search in the previous month regardless of current employment status.

14 Among individuals who are currently unemployed, only rejected offers will be reported. According to Holzer (1988), these represent less than 20% of all offers made.

15 For instance, the NLS surveys focus only on youth or on older people, depending on the particular version. The Panel Study of Income Dynamics (PSID), on which the work of Corcoran et al., is based, is limited to heads of households and their spouses.
The survey, described in U.S. Department of Labor (1976), was administered to 2000 job seekers in medium-size American cities (i.e., between 100,000 and 250,000 in population). The survey covers job seeking activity during the last six months of 1974. An additional survey of 600 firms in these areas was also conducted and is discussed below.

Direct application to employer may not have specified "without referral", and thus might overlap with other methods. In this case the figure reported might represent an upper bound to the true effect.

Corcoran et al., find that about half of all workers in their sample (of household heads and spouses) heard about their current job from friends and relatives, though this is not a representative sample of recent job seekers. Granovetter (1974) found the same thing among professional and managerial employees in Newton, Mass. Rees and Schultz (1970) found this to also be true of all blue-collar occupations which they studied in Chicago in the mid-1960s.

Breaugh, in particular, finds that the performance of those hired through referrals from current employees may depend on the morale among the earlier employees and the closeness of the jobs in question.

Barron and Gilley (1981) and Chirinko (1982) find that indirect methods (including the ES - see footnote 2) have negative (though not always significant) effects on the probability of contacting employers and receiving employment, relative to direct applications. Holzer (1988) find lower probabilities of obtaining offers from using any of the formal methods relative to informal ones.
Economists know these problems as those of self-selection and unobserved heterogeneity in estimation. There are statistical procedures for dealing with such problems, though their usefulness is often limited by the quality of available data. Actual labor market experiments involving random assignments of individuals to different groups can often be used more effectively to deal with these problems, though I know of none to date which have been performed on the issues of search method use and effectiveness.

In that survey, employers are asked which methods they used in the last 10 days (if they had a job opening) and which helped them to obtain their most recently hired worker. To the former question, 53% reported announcements to current employees; 37% used newspaper ads; 20% used the ES; and 22% used unions or private agencies. To the latter question, 36% reported friends/relatives of current employees; 19% reported walk-ins; 13% reported ads, and only 3% reported the ES.

The BNA sample consists of executives from 188 primarily large firms. Over 90% use employee referrals, over 80% use walk-ins and ads, 63% use the ES, and about 45% use private agencies. Rankings are based on subjective impressions of "effectiveness".

As noted above (Footnote 18), the sample of all recently hired employees is not the same as a random sample of firms with openings in a specified period.

33% of firms report community agencies as being "most effective" in recruiting minorities while 30% report referrals from current employees and 20% report employment agencies (public or private).
This estimation, in addition to having the sample "selection" problems noted above (See Footnote 21), also has the problem of comparing subjective ratings across employers for whom a particular number may mean different things. The relatively weak effects noted in Holzer (e.g., 1 to 2 points on a 100-point scale from using current employee referrals) must be interpreted with this in mind.

One way in which the effectiveness of placement services might further be enhanced might be for the U.S. government to collect vacancy data in surveys of employers within local labor markets, and to provide these data as information to placement offices. Vacancy data are generally collected in virtually all other OECD countries.

Job search instruction has been included in the job-training portions of many recent welfare reform programs at the state level (Gueron, 1986), though their specific effects have generally not been estimated.
REFERENCES


