Verification of the Effects of Vocational Training and Career Counseling using Statistical Methods

Research Objective
To date, there has been a continuous need to study and verify the effects of vocational training and career counseling. In developed countries, there is an apparent trend toward more discussion of career guidance policies, including those concerning vocational training and career counseling, which is based on certain evidence. The purpose of this research was to examine the effects of vocational training and career counseling by reanalyzing existing data based on this trend.

Specifically, the author mainly referenced previous studies conducted using propensity score matching in behavioral metrics (psychology) to verify the results of vocational training and career counseling. With propensity score matching, it becomes possible to homogenize the attributes and characteristics of persons who have received vocational training and those who have not and of persons with experience of career counseling and those with no such experience, and, to a large extent, it becomes possible to uniquely define the effects that vocational training and career counseling should have in terms of employment, sense of satisfaction, and income.

The research was implemented in response to a request from the Ministry of Health, Labour and Welfare for “Verification of the Effects of Vocational Training and Career Counseling using Statistical Methods.” It was conducted using supplied data and other cooperation with the intent of contributing to future vocational training measures and career counseling measures.

Research Method
For the portion of the research focused on verifying the effects of vocational training, the author partially extracted information pertaining to job seekers, including those who have participated in training and those who have not, respectively, from (1) job application registers and (2) registers on employment insurance operations of registers of workplaces covered by insurance that are prepared and retained in the “Hello Work System,” an operations system of Hello Work (public employment security offices), and then used data linked that information using insured person numbers from employment insurance.
For the portion focused on verifying the effects of career counseling, the author used data from the Japan Institute for Labour Policy and Training (2017). A characteristic of these data is that they were obtained from a large survey targeting some 10,000 persons that established screening items for the separation of persons with experience of career counseling and those with no such experience. This resulted in their being classified into “persons with experience of career counseling” and “persons with no experience of career counseling.”

Using propensity score matching for both sets of data, the attributes of the “participants’ group” and “non-participants’ group” for vocational training and the “experience group” and “no experience group” for career counseling were homogenized to a certain extent and then compared.

**Main Findings**

1. From the examination of this research, it was found that, when compared with non-participants, participants in vocational training (1) had a higher employment rate (Figure 1), (2) received higher wages from their employers when the wages of their previous jobs were low, and (3) had higher percentages of employment in such industries as “social insurance, social welfare, and care services” and “miscellaneous business services.” Additionally, (4) although there was no difference between the two groups in terms of job commitment following employment, slightly more in the participants’ group left employment.

**Figure 1. Having or not having acquisition date of employment insurance qualification by training participation/non-participation (employed/unemployed)**

![Figure 1](image-url)
2. It was found that, when compared with persons with no experience of career counseling, those with experience had (1) a higher sense of satisfaction in general (Figure 2), (2) confidence in their vocational skills, and (3) higher income when keeping the frequency of changing employment constant.

![Figure 2. Sense of satisfaction with respect to various aspects by experience/no experience of consulting with a career expert](image)

3. As a result of a comparison of persons “having experience of consulting with a career expert within the company” and “having experience of consulting with a career expert outside the company” with the same procedure that used propensity score matching, it was found that many in the “outside the company” group changed employment but few in the “inside the company” group did so (Figure 3).
Figure 3. Number of changes of employment by experience/no experience of consulting with a career expert inside the company/outside the company

<table>
<thead>
<tr>
<th>Experience of Consulting</th>
<th>Company</th>
<th>Outside Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 times</td>
<td>23.3%</td>
<td>30.7%</td>
</tr>
<tr>
<td>1 time</td>
<td>15.8%</td>
<td>29.7%</td>
</tr>
<tr>
<td>2 times</td>
<td>11.7%</td>
<td>12.9%</td>
</tr>
<tr>
<td>3 or more times</td>
<td>49.2%</td>
<td>26.7%</td>
</tr>
</tbody>
</table>

Policy Implications

1. Looking vocational training, firstly, while certain effects were observed in terms of higher job placement rates on one hand, there were also some persons who left employment after obtaining it. From this, vocational training’s effectiveness in improving employment rates is recognized; however, it can also be pointed out that separate measures to improve commitment following employment must be studied. Secondly, appropriate vocational training corresponding to the circumstances and characteristics of job seekers exists, and it is shown that, more than before, there is a need to consider the provision of vocational training that is matched to job seekers’ individual attributes. Here it is suggested that, although initiatives that are conscious of the synergetic effects of vocational training and career counseling are currently being implemented at Hello Work, such initiatives should be promoted more vigorously in the future. Thirdly, while the continuous study of traditional vocational training methods is also a matter deserving attention, because adequate discussion of vocational training teaching methods takes place less often compared to teaching methods for school education, company’s in-house training, etc., the necessity of engaging in more minute study from the standpoint of learner-centered pedagogies—which seek more effectiveness in terms of when, where, how, and for whom—is shown.
2. With regard to career counseling, firstly, although certain positive effects are demonstrated in subsequent sense of satisfaction, income, etc., a close connection is observed between career counseling and change of employment, which suggests that the relationship between the two should be emphasized. The research’s findings suggest that it should be assumed that career counseling is often involved when people make a change in employment that represents a major turning point in their careers. Secondly, when persons who experienced receiving career counseling inside and outside their companies were compared, it was found that fewer of those whose experience was inside their companies changed employment. In general, discussions on whether or not to introduce career counseling into a company often include concerns that career counseling will lead to the loss of capable human resources in the company. However, from the results of the research, it is considered that not creating avenues for appropriate consultation within a company actually does more to generate losses of human resources. This is because employees seek places for consultation that are outside the company. Thirdly, the discussion of career counseling measures has typically taken place from a normative standpoint that supposes an idealized image of career counseling rather than the development of evidence-based measures. This suggests that Japan should join other nations in stressing various types of evidence.

Policy Contribution
The research will broadly contribute to human resources development policy and primarily to vocational training measures and career counseling measures.

Main Text (only available in Japanese)
Labor Policy Report No. 12

Research Categories
Project research: Research on Career Formation Support toward the Achievement of a “Society in which All Citizens are Actively Engaged”

Research Period
Fiscal year 2018

Author
SHIMOMURA Hideo  Senior Researcher, Japan Institute for Labour Policy and Training
Related Research

Research Series No. 107 “The Vocational Skills, Daily Life Skills, and Employment Attitudes of Adults” (2013)


Research Report No. 200 “Survey on Activities, etc. of Nationally Licensed Career Consultants” (2018)