

DOCUMENT RESUME

ED 467 595

CE 083 700

AUTHOR Lee, Lung-Sheng Steven
 TITLE Current Status and Future Prospects of Upper-Secondary Vocational Education in Taiwan.
 PUB DATE 2002-07-13
 NOTE 11p.; Paper presented at the Annual Meeting of Japan Academic Society for Industrial Education and to the Training Group in Industrial Technology Education, sponsored by the Japan International Cooperation Agency (Tokyo, Japan, July 13, 2002).
 PUB TYPE Opinion Papers (120) -- Speeches/Meeting Papers (150)
 EDRS PRICE EDRS Price MF01/PC01 Plus Postage.
 DESCRIPTORS Articulation (Education); Change Strategies; Competency Based Education; Delivery Systems; Educational Change; Educational Cooperation; *Educational Development; Educational Improvement; *Educational Quality; Educational Trends; *Enrollment Trends; Foreign Countries; Futures (of Society); *High Schools; Occupational Clusters; Partnerships in Education; Program Development; State of the Art Reviews; Student Educational Objectives; Technology Education; *Vocational Education
 IDENTIFIERS *Taiwan

ABSTRACT

The current status and prospects of upper secondary vocational education (USVE) in Taiwan were reviewed. The following were among the key findings: (1) in Taiwan, USVE is offered in all vocational high schools (VHS), the occupational programs in all comprehensive high schools (CHS), and some senior high schools (SHS); (2) students in VHS constitute 55% of all students in USVE, with the remaining 45% enrolled in either SHS or CHS; (3) as of 2000-2001, there were 188 VHS, including 93 private VHS; (4) USVE in Taiwan is no longer terminal education inasmuch as most students enrolled in USVE want to pursue further study and 38% of VHS graduates in 2000-2001 were admitted to postsecondary education; (5) VHS are increasingly being transformed into CHS; (6) USVE programs and curricula are undergoing a process of reform that involves grouping all programs in Taiwan's technological and vocational education system into 17 clusters and introducing the concept of competency-based education to foster a more demand-oriented and learner-centered curriculum; (7) VHS will likely continue to downsize and pursue quality; (8) USVE programs will align to occupational families; (9) USVE will expand its audience to include a greater variety of students; and (10) VHS and CHS will strengthen their partnerships. (MN)

ED 467 595

Running head: VOCATIONAL EDUCATION IN TAIWAN

**Current Status and Future Prospects of
Upper-Secondary Vocational Education in Taiwan**

Lung-Sheng Steven Lee
National Taiwan Normal University

BEST COPY AVAILABLE

Paper presented at the Annual Conference of Japan Academic Society of
Industrial Education (JASIE), and to
the Training Group in Industrial Technology Education, Sponsored by
the Japan International Cooperation Agency (JICA),
Olympic Center, Tokyo,
July 13, 2002

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.

Mirror changes have been made to
improve reproduction quality.

• Points of view or opinions stated in this
document do not necessarily represent
official OERI position or policy.

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

Lung-Sheng Lee

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

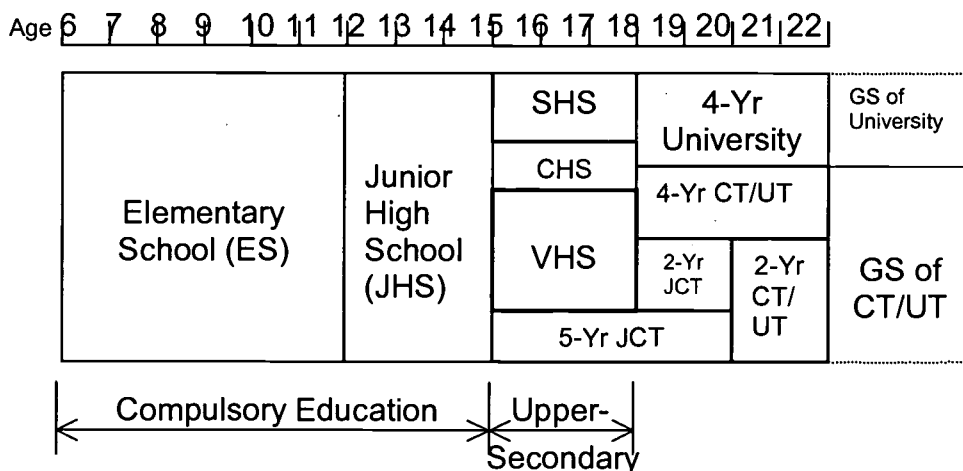
ERIC
Full Text Provided by ERIC

Abstract

In Taiwan, the upper-secondary vocational education (USVE) is primarily offered in all vocational high schools (VHS's), the occupational programs in all comprehensive high schools (CHS's), and some senior high schools (SHS's). The USVE's current status may be described as follows: (1) Students in VHS's outnumber the total in SHS's and CHS's; (2) Many VHS's are privately-managed; (3) The majority of students want to receive further study; (4) VHS's have been increasingly transformed to CHS's; (5) Programs and curriculum are being reformed. The USVE's future prospects are as follows: (1) VHS's will continue downsizing and pursuing quality; (2) USVE's programs will align to occupational families; (3) USVE will expand its audience to include a greater variety of students; (4) VHS's and CHS's will strengthen their partnerships.

Current Status and Future Prospects of Upper-Secondary Vocational Education in Taiwan

As shown in Figure 1, the formal educational system in Taiwan consists of two years of kindergarten, six years of elementary school, three years of junior high school, three years of upper-secondary school, 2-7 years of college or university, 1-4 years of master's program, and 2-7 years of doctoral program. The percentage of graduates admitted to the next level of education is presented in Figure 2. The educational system separates into two tracks beginning with the upper-secondary: general education (GE) and technological and vocational education (TVE). The GE mainly comprises SHS's and 4-Yr universities while the students in TVE mainly have the following three pathways of further study: (1) VHS—2-Yr JCT—2-Yr CT/UT, (2) VHS—4-Yr CT/UT, and (3) 5-Yr JCT—2-Yr CT/UT. The CHS's are an integration pattern of GE and TVE. Grades 11 and 12 in CHS's are eligible to choose academic and/or occupational programs. In the 2000-2001 school year, there were 124 upper-secondary schools offering CHS programs with a total of 68,977 students. Of these schools, only 10 were fully CHS's, the remaining were either VHS's or SHS's (MOE, 2002).



Legend

- | | |
|--|-------------------------------------|
| CHS: Comprehensive High School (綜合高中) | SHS: Senior High School (普通高中) |
| CT: College of Technology (技術學院) | UT: University of Technology (科技大學) |
| GS: Graduate School (研究所) | VHS: Vocational High School (職業學校) |
| JCT: Junior College of Technology (專科學校) | Yr: Year |

Figure 1. The formal educational system in Taiwan.

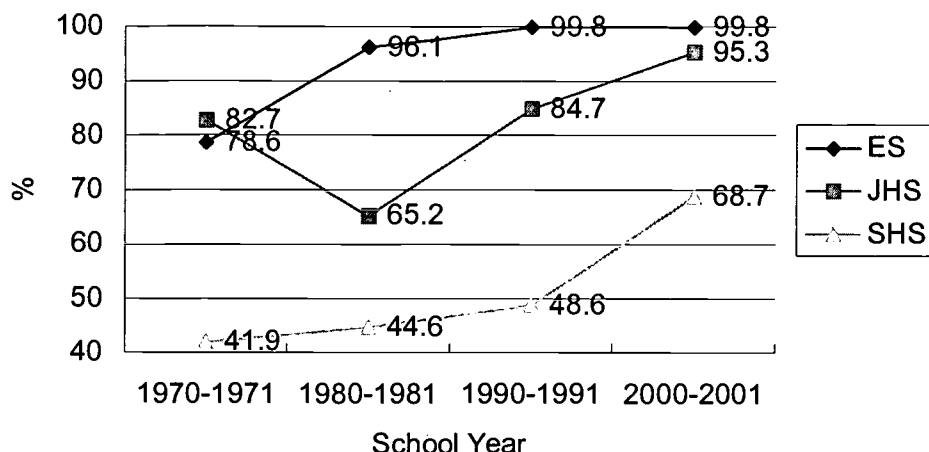


Figure 2. The percentage of graduates admitted to next level of education.
Source: MOE, 2001.

The three types of upper-secondary schools/programs for junior high school (JHS) graduates (i.e., Grade 9 completers) are: senior high school (SHS), vocational high school (VHS) and comprehensive high school (CHS). All VHS's, all the occupational programs in CHS's, and some SHS's offer vocational preparation education (afterwards called "upper-secondary vocational education" or "USVE"), which assists students for both job training and further study. The disciplines of USVE are divided into the following seven categories: agriculture, industry, commerce, home economics, maritime & fishery technology, nursing & medical technology, and opera & arts. Each category consists of many specialty departments (e.g., childcare in Home Economics) and each department may offer the following five programs (MOE, 2002):

1. Regular study program: This is for JHS graduates and lasts for three years. Students go to classes during the daytime.
2. Cooperative education program: This is administered by schools in cooperation with firms. This program usually lasts three years, with the school responsible for providing theoretical courses while the cooperating firm provides practical experience and technical knowledge.
3. Practical skills program: This is designed to provide JHS graduates who do not intend to continue their formal education with an opportunity to learn marketable skills. Students normally register and attend the 1-year program during the daytime or the 3-year program in the evening. Certificates are issued to qualified students at the end of each program, but those who complete a three-year program receive a certificate equivalent to a VHS diploma.
4. Special education program: This program offers both regular 3-year courses and 1-year practical skills programs for JHS graduates with minor learning difficulties. Each class recruits 6-15 students.
5. In-service study program: This program is designed to meet the needs of JHS graduates who are currently employed or plan to begin a career. There is no age restriction for admission. Classes are normally held in the evening or during the weekends.

In addition to the above diversified programs, both SHS's and CHS's also offer occupational programs. In the 2000-2001 school year, there were 92 schools offering 3-year occupational programs and 149 CHS's offering 2-year occupational programs.

USVE's Current Status

The USVE's current status may be described as follows:

1. Students in VHS's outnumber the total in SHS's and CHS's

In the 2000-2001 school year, about 55% of students in upper-secondary schools were in VHS's (see Figure 3).

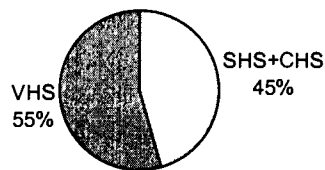


Figure 3. The percentage of students in upper-secondary schools in the 2000-2001 school year.

2. Many VHS's are privately-managed

As of the 2000-2001 school year, there were 188 VHS's. Among them, 93 (or about 49%) were private. The full-time students (i.e., those in regular study programs and cooperative programs) numbered 427,366, with some 60% in private schools. Additionally, of the 92 SHS's offering occupational programs, 73 schools (or 79%) were private.

3. The majority of students want to receive further study

The vocational education in Taiwan is no longer a terminal education. VHS graduates who want to go on to further education may choose to study in 2-Yr JCT or 4-Yr CT/UT. For the years 1991-2001, the percentage growth of students who graduated from VHS's, and were admitted to the next level of education is shown in Figure 4. The percentage in the 2000-2001 school year was about 38%.

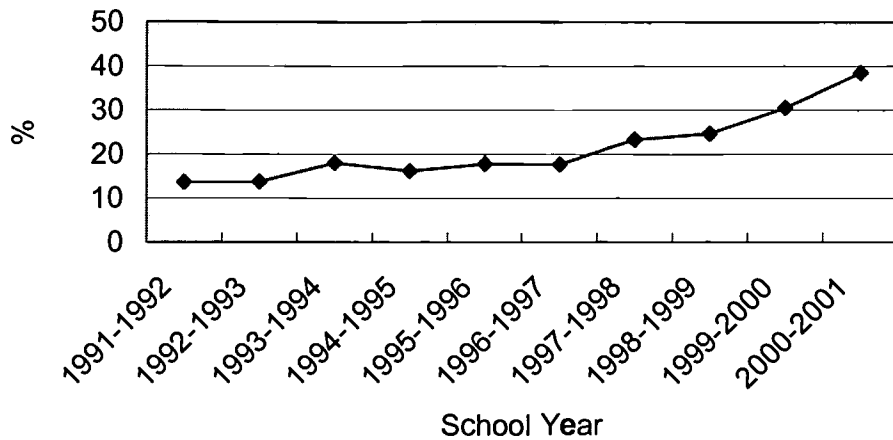


Figure 4. The percentage growth of students who graduated from VHS's, and were admitted to the next level of education.

4. VHS's have been increasingly transformed to CHS's

The CHS system was initiated in the 1996-1997 school year. As shown in Figure 5, the number of CHS's has increased. In the 2000-2001 school year, there were 10 fully CHS's and 114 VHS's or SHS's that contained CHS programs. Of the 114 upper-secondary schools, 47% were VHS's.

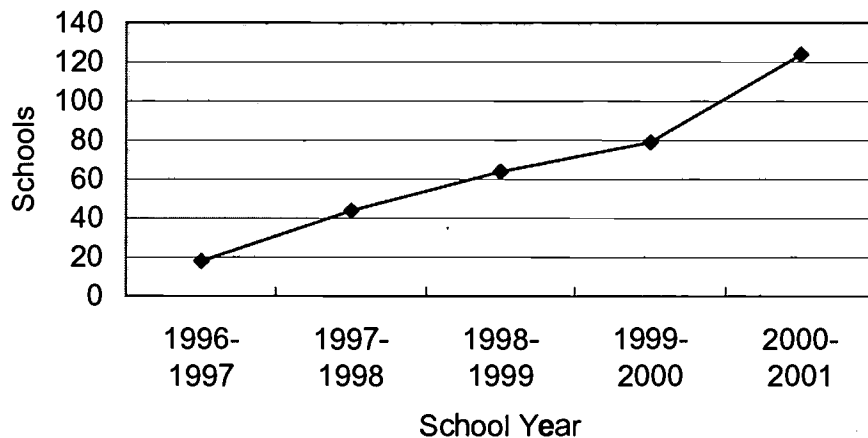


Figure 5. The number of CHS's has increased.

5. Programs and curriculum are being reformed

In recent years, the Ministry of Education (MOE) has been working on a plan for TVE's coherent curriculum reform. All programs in the TVE system are being grouped into 17 clusters and the conception of competency-based education (CBE) has been adopted to foster a more demand-oriented and learner-centered TVE curriculum.

USVE's Future Prospects

The USVE's future prospects are as follows:

1. VHS's will continue downsizing and pursuing higher quality

As shown in Figure 6, from the years 1996-2001, the growth rate of VHS students was about -18%, while the total growth rate of both SHS and CHS students was about 33%. It is predicted that VHS's will continue downsizing. Competing with SHS's and CHS's, VHS's must pursue higher quality, which is measurable by the number of students enrolling in and completing the program, the number of students working in the field after completion, the number of students going on further study, as well as positive feedback from employers and/or institutions of higher education that receive students who complete USVE programs.

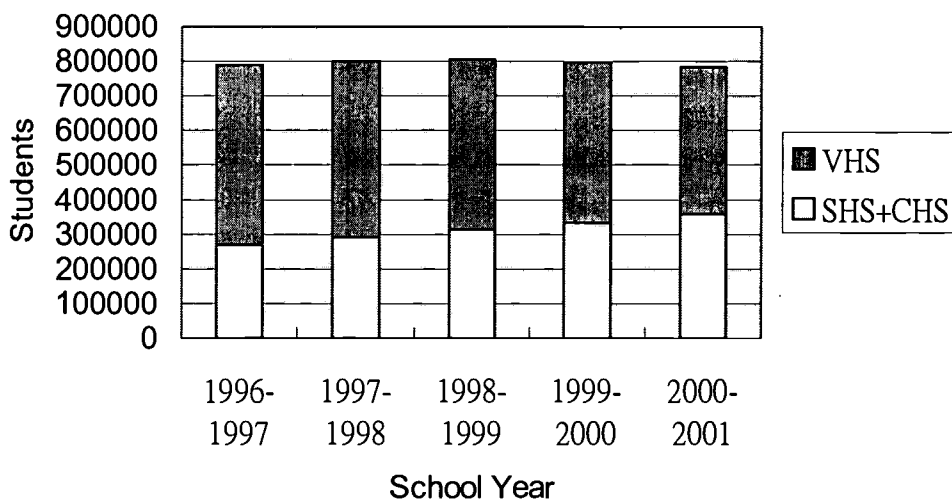


Figure 6. The number of VHS students is dropping.

2. USVE's programs will align to occupational families

The future USVE's national curriculum will require all programs in the same cluster, aiming to an occupational family, to share the same core courses but allow each program to develop its own school-based courses. Figure 7 presents the above conception and addresses issues that the core courses at this level have to articulate with the core courses at the further education levels. The required core courses will lead current USVE programs to align to an occupational family rather than an occupation.

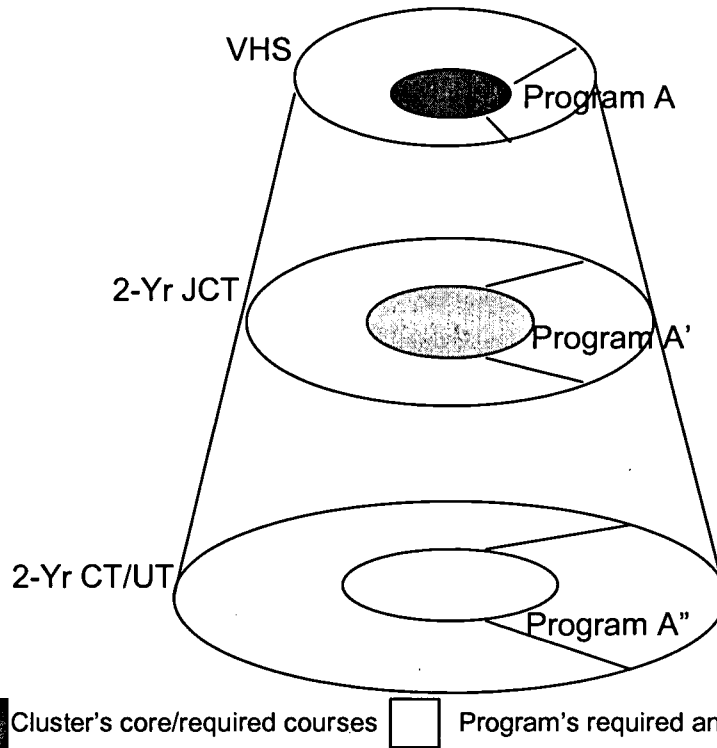


Figure 7. The relationship between a cluster's core courses and a program's specific courses.

3. USVE will expand its audience to include a greater variety of students

If the USVE wants to retain its rigor, it should expand its audience from the youth mainly to both the youth and the adult. The people are encouraged to address life-long learning and the USVE has been encouraged to offer adult programs.

4. VHS's and CHS's will strengthen their partnerships

It has been claimed that USVE has to promote the integration of educational resources and to enhance learners' contextual learning (Chen 2002). Thus, some measures, such as grant offering, have been implemented to strengthen upper-secondary schools' partnerships. The partnerships will help establish better links between schools, communities, and industry, etc.

Reference

- Chen, D. H. (2002). *Technological and vocational education in Taiwan*. Paper presented at the 2002 International Conference Amongst the Southeastern Asian Countries on Technological and Vocational Education, June 23, National Pingtung University of Science and Technology (NPUST).
- Ministry of Education (MOE). (2001). *2001 Education in the Republic of China (2001)*.
- Ministry of Education (MOE). (2002). *A brief introduction to the technological and vocational education of the Republic of China*.

Author Note

Dr. Lung-Sheng Lee (李隆盛) is a professor of the Department of Industrial Technology Education (ITE) and the Dean of the College of Technology, National Taiwan Normal University (NTNU-CT). The NTNU-CT (<http://www.ntnu.edu.tw/tech/WWW/>) has prepared vocational educators, technology educators, human resource (HR) professionals, etc. He is grateful for the invitations of Prof. Hidetoshi Miyakawa (宮川秀俊教授), Aichi University of Education, and President Kazuya Kobayashi (小林一也會長), Japan Academic Society of Industrial Education (JASIE), to write this paper and make a presentation. Correspondence concerning this paper should be addressed to Lung-Sheng Lee, College of Technology, National Taiwan Normal University, 162 Hopping E Rd, Sec 1, Taipei 106, Taiwan. Electronic mail may be sent via the Internet to t83006@cc.ntnu.edu.tw.



REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: <u>Current Status and Future Prospects of Upper-Secondary Vocational Education in Taiwan</u>	
Author(s): <u>Lung-sheng Steven Lee</u>	
Corporate Source: <u>National Taiwan Normal Univ.</u>	Publication Date: <u>July 2000</u>

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits. If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: <u>Lung-sheng Lee</u>	Printed Name/Position/Title: <u>Lung-sheng Lee</u> <u>Prof. & Dean</u>
Organization/Address: <u>College of Technology</u> <u>National Taiwan Normal Univ.</u> <u>162 Heping E Rd, Sec 1</u> <u>Taipei 106, Taiwan</u>	Telephone: <u>+886-2-23926813</u> E-Mail Address: <u>ts3p66@cc.ntnu.edu.tw</u> FAX: <u>+886-2-23926814</u> Date: <u>July 4, 2000</u>

(Over)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

<p>Cheryl Grossman Processing Coordinator ERIC Clearinghouse on Adult, Career, and Vocational Education Center on Education and Training for Employment 1900 Kenny Road Columbus, OH 43210-1090</p>

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to: