

## DOCUMENT RESUME

ED 447 839

JC 010 000

AUTHOR Lee, Marcia M.  
TITLE A Formula for Writing Environmental Scans for Community Colleges.  
INSTITUTION Westchester Community Coll., Valhalla, NY. Office of Institutional Research.  
PUB DATE 1999-11-05  
NOTE 8p.  
PUB TYPE Opinion Papers (120)  
EDRS PRICE MF01/PC01 Plus Postage.  
DESCRIPTORS College Administration; \*Community Colleges; \*Educational Planning; \*Environmental Scanning; Futures (of Society); Institutional Mission; Long Range Planning; School Community Relationship; \*Strategic Planning; Two Year Colleges

## ABSTRACT

This paper proposes a five-part formula for conducting an environmental scan for community colleges and writing up the results. To fulfill its mission effectively, administrators should be informed about various aspects of the community they serve. The formula is designed to make the project as easy as possible, focused, and usable the next time around. Another objective of the formula is to provide the data necessary for college faculty and administrators to have a good sense of future student enrollments, and be able to make informed decisions for planning future academic programs, students services, off-campus locations, and other long range objectives. The five parts of the formula are: (1) focus the subject matter on five topics: population trends, economic outlook, job openings, high school graduates, and commutation and transportation; (2) for collecting data, begin with the County Planning Department, which can be particularly useful for population trends and transportation maps. (3) use tables, charts, and maps to support each major point; (4) develop a detailed, concise table of contents; and (5) include an executive summary and conclusion. At the end of each factor that is summarized, it may be appropriate to draw a conclusion or make recommendation. Appended is an executive summary example. (JA)

## A FORMULA FOR WRITING ENVIRONMENTAL SCANS FOR COMMUNITY COLLEGES

Marcia M. Lee, Ph.D.

Director, Office of Institutional Research and Planning  
Westchester Community College

PERMISSION TO REPRODUCE AND  
DISSEMINATE THIS MATERIAL HAS  
BEEN GRANTED BY

*Marcia Lee*

TO THE EDUCATIONAL RESOURCES  
INFORMATION CENTER (ERIC)

### Introduction

1

Community Colleges have a mission substantially more focused than four-year institutions, specifically to serve the local community in providing post secondary education and workforce training. To do this effectively it is necessary for administrators and faculty to keep current on various aspects of the community they serve. Many Offices of Institutional Research, however, shy away from conducting environmental scans because the task seems daunting or the time too limited. Neither needs to be the case.

This paper proposes a five-part formula for conducting an environmental scan and writing up the results. It is designed to make the project as easy as possible, focused, and usable the next time around (once every three years, if possible). Besides making the environmental scan *doable*, the objective of this formula is to provide the data necessary for college faculty and administrators to have a good sense of future student enrollments, and be able to make informed decisions for planning future academic programs, students services, off-campus locations, and other long range objectives.

### Part I: Focus the Subject Matter on Five Topics

There are an endless number of topics about the community or county one could address in an environmental scan, but the following seem to be the most important for decision making:

1. **Population Trends:** The first order of business is an analysis of the absolute growth or decline of the county population followed by an analysis of any geographic shifts of the population within the county. Is the population moving out of the cities toward more rural areas; is it moving north or south; is it remaining fairly stable in location? Next, a breakdown of the ethnic background of the population with emphasis on trends. What ethnic groups are growing the fastest? Where? Third, the age trends. Is the population getting older; is the birthrate increasing? Is there a bulge in the 34 to 50 aged population? Last, the gender. Do men and women comprise roughly the same percentage of the population at various ages, or are there marked differences?

2. **Economic Outlook:** A review of the overall economy of the county is the first focus here. What are the prospects for economic growth in the next five years in terms of annual percentage growth rate? Is the county coming out of or going into a recession? Next should come an analysis of the sectors within the economy indicating which ones are growing. The standard sectors used in most government reports include: (1) *Wholesale & Retail Trade*, (2) *Services*, (3) *Government*, (4) *Manufacturing*, (5) *Finance, Insurance & Real Estate (F.I.R.E)*, (6) *Transportation*, and (7) *Construction*. Included in *Services* are two particularly important sub-sectors--the health care industry and the information technology industry—two probable areas of growth, depending on where you live.
3. **Job Openings:** Projections showing the number of job openings in the next five to ten years is the focus of this section. Select those occupations requiring post-secondary education. The state or county Department of Labor should have the data broken down by the level of higher education required, including, *Occupations Requiring Some Post-Secondary Education*, *Occupations Requiring an Associate's Degree*, and *Occupations Requiring a Bachelor's Degree*.
4. **High School Graduates:** Recent high school graduates in the county comprise an age group particularly important to community colleges because they tend to be the largest source of first-time, full-time students. The trend over a period of years is important. Currently, an annual increase in the number of high school graduates is occurring throughout the country as the baby boomlet (children of baby boomers graduating from high school) plays out. This trend should continue until 2008. A comparison of the number of high school graduates per year to the percent entering the community college the following fall semester is a useful bit of information, too.
5. **Commutation and Transportation:** Community colleges also are unique in the degree to which most of the students use some form of vehicular transportation each day. Major road improvements, changed bus routes, and unreliable commuter train schedules can have an impact on college enrollments. This section of the environmental scan should list the major road repairs for the next three years and their completion dates, new or revised bus routes, and chronic commuter rail problems. Of course, adequate parking is a factor not to be overlooked, even if, technically, it is located on campus.

## II: Collection of Data

Never has the old adage, *A job well begun is a job half done*, been more applicable here. Begin with the County Planning Department, and do not just communicate by phone or E-mail. Make an appointment to meet with the top planner that will see you. Take any pertinent handouts and reports that Planning Departments tend to display in racks and open files, and ask to see their maps. The Planning Department is particularly good for

population trends and transportation maps. If the county also has an Office of Economic Development, go there, too. This Office usually publishes booklets for perspective companies that are thinking of locating in the county. The booklet will probably include a wealth of information on the local economy.

For job opening trends in the county, the state Department of Labor is probably the best source. Ask for the chief analyst, who should be able to provide projections for the number of job opening per occupation in your region, if not county, further broken down by the amount of education required. Ask only for the jobs requiring (1) some higher education, (2) an associates degrees, and (3) a bachelor's degrees. A separate chart of the number of projected openings for the top ten job categories for each level of higher education is an effective way to present this data.

For information on high school graduates contact either the local association of schools in your county or the state Department of Education. Your own admissions director is a good source for the number of June graduates who enroll the following fall.

For information on transportation developments, the county Transportation Department may be able to add to the information available from the Planning Department, or, if nothing is available, the State Department of Transportation may be helpful. If you are located in a large metropolitan region, there may also be a regional organization.

*The most important objective is to develop a working relationship with these planners and officials. To the extent you can quickly call on these people for information in the future, your value to the College increases considerably. It is worth the time to develop personal contacts.*

### **Part III: Use Tables and Charts and Maps**

Each major point should be supported either with a map, a table, or a chart. For population shifts within the county and transportation problems, maps are particularly useful. For demographic trends and job sector trends, bar charts and pie charts are very effective. For trends in high school graduation rates, and job opening trends, tables are useful. In fact, tables are useful to back up most types of bar charts and pie charts. Charts, maps, and tables not only provide a quick visual way to present data, but they break up the page and give a nice presentation that can make the difference between someone willing to wade through the report or not.

### **Part IV: Develop a Detailed, Concise Table of Contents**

Having spent all the time to collect and analyze the data, it is well worth the investment of time to develop a detailed and concise Table of Contents. It allows the perspective reader to see quickly where information is located, and immediately displays the organizational layout of the report. Making it a part of the front page, such as the *Reader's Digest*, also can be effective.

## Part V: Include an Executive Summary and Conclusion

Some researchers think that by not including an Executive Summary, the reader will be forced to read the entire report. Wrong. More than likely, the reader will not read the report at all. One of the greatest challenges faced today by those in Institutional Research is to get the rest of the College to actually read the reports produced.

Executive summaries are a large part of the answer. Everyone likes to feel they have cut through the superfluous and acquired the nuts and bolts of the report by reading just a few pages. The secret for Institutional Researchers, therefore, is to have the Executive Summary cover everything in shorthand form. A modified outline format lends itself to this task. Begin the summary with a brief statement of what the report covers, i.e., this environmental scan focuses on five factors (1) Population Trends, (2) the Economy, (3) Job Market Trends, (4) High School Graduation Trends, and (5) Commutation Trends.

At the end of each factor that is summarized, it may be appropriate to draw a conclusion or make a recommendation. If so, these statements might best be put in italics, and even bolded to draw attention to them. Too often Institutional Researchers shy away from offering conclusions or making recommendations. Yet, they are the ones that have been working with the data the most. It is time for more Offices of Institutional Research to provide this higher level of service.

### Conclusion

Environmental Scans are not difficult to produce, once a specific format is developed and the best sources for the data are identified. Since these scans should be conducted periodically (every three years, if possible), it is well worth the effort, initially, to establish close personal working relationships with planners at the county and state level.

Writing the report is only half the challenge. The other half is to make sure that faculty and administrators read the report and incorporate the information into their decision making in developing new curricula, changes in student services, locations for off-campus sites and other long range plans. In accomplishing this later objective, the importance of maps, charts and graphs to fortify the data should not be underestimated, as well as the effectiveness of a concise and complete Table of Contents and an well-written Executive Summary. As an example, an executive summary for an environmental scan conducted for Westchester Community College follows in Appendix I.\*

---

\* An example of a complete environmental scan report using this format is available on request. It is entitled: *Sources of Student Enrollments for the Next Decade, A Demographic and Economic Outlook: 1998 to 2008*, by Marcia M. Lee, Ph.D., Office of Institutional Research and Planning, Westchester Community College, Valhalla, New York June 1998.

## Appendix I

### An Executive Summary Example

*Sources of Student Enrollments for the Next Decade  
A Demographic and Economic Outlook: 1998-2008*

With the population of Westchester county projected to grow only minimally in the next decade, Westchester Community College will have to look *within* the population and *outside* the county to identify potential new students.

This report focuses on five factors, (1) Population Trends, (2) the Economic Outlook (3) Job Market Trends, (4) High School Graduation Trends, and (5) Commutation Trends, to analyze their impact on future student enrollments and to suggest groups within the population the College might seek to attract.

Population Trends: Four major population shifts are projected to occur within the county and in the greater Hudson Valley Region in the coming decade (1998 to 2008).

1. The rapid growth in population in northern Westchester and southern Putnam county is not expected to continue due to the recent implementation of the New York City 1997 watershed regulations that will constrain housing production considerably. ***The College should not look to northern Westchester or Putnam county in the next decade for a rapidly growing population to supply a new source of additional students.***
2. Fortunately, southern Westchester, after decades of population decline is expecting a modest growth caused by in-migration from the Bronx and other metropolitan areas. ***In terms of potential sources of new enrollment the southern section of the county, particularly Yonkers, Mount Vernon, and the northern Bronx are places to look.***
3. The Hispanic population will undergo the largest growth of any ethnic group between the years 2000 and 2010. It is projected to increase by one-third (32.4%) adding 60,667 to the population. ***The potential new growth in the student body will come primarily from students of Hispanic background.***
4. The population of Westchester county will continue to grow older, such that by 2010 almost one-fifth (17.1%) will be 65 and older and less than one fifth (17.1%) will be 19 and under. ***In developing new programs the College should give special consideration to courses and programs that appeal to an older generation of people.***



**High School Graduates:** In June, 1997 the baby boomlet (children of the baby boomers graduating from high school) began to *kick in* and the number of high school graduates is expected to gradually increase until 2008. ***High School graduates, therefore, are a growing pool of potential students for the next ten years.***

**Economic Outlook:** The economic outlook for Westchester and the Hudson Valley Region is favorable with an annual growth rate projected at between 1.2% to 2.2% for at least the next five years. Neighboring counties are expected to have an even higher growth rate with Fairfield, Connecticut projected to grow at an annual rate of 2.6% and northern New Jersey at 2.5%. ***Since many WCC students find employment in these areas outside the county, this should be kept in mind when calculating the job market for a prospective degree or certificate program.***

**Job Market Outlook:** In the Hudson Valley Region the shift to a service economy will continue, going from 32.9% of the economy in 1996 to 37.3% by 2005. Within this sector the largest number of jobs will occur in the health services industry with 18,400 new jobs projected. The fastest growing area, however, is the business services sector, particularly information systems, with a 52% rate of increase projected, adding 17,200 new jobs by 2005. All the other sectors will see little or no increase including the Government sector and the Finance, Insurance and Real Estate (F.I.R.E.) sector. ***In planning new curricula, therefore, the health sector and the information systems sector are expected to far outdistance the others in future job openings in the next decade.***

**Jobs Requiring Higher Education:** *The top ten occupations with the largest number of projected job openings that require some post secondary education, an Associate's Degree or a Bachelor's degree are:*

<b>Occupation</b>	<b>Annual Job Openings</b>
1. Secretaries (excluding legal and medical)	3,790
2. Teachers, Secondary school	1,610
3. Registered Nurses	890
4. Teachers, Elementary	830
5. Automotive Mechanics	820
6. Accountants and Auditors	770
7. Computer Programmers	730
8. Data Entry-Insurance	710
9. Social Workers, (Except Med. & Psych.)	700
10. Hairdressers and Cosmetologists	650

Only one of the top ten occupation requires an Associate's degree (registered nurses). Moreover, only 29,700 job openings requiring Associate's degree are projected in the next decade, compared to 119,790 requiring a Bachelor's degree and 57,220 requiring some post secondary education.

Commutation: Surveys conducted on WCC students confirm that the commuting time to and from college is an important factor in attending the College, especially for students thirty and over.

Improvements on the lower Sprain Brook Parkway that are near completion should shorten the commuting time from the Bronx, southern Yonkers, and Mount Vernon. ***Coupled with projected population increases in the southern section of the county, and an increase in the number of Hispanics reaching college age, these commutation improvements provide an additional reason to target new students in the Bronx, southern Yonkers and Mount Vernon.***

Expansion of the Taconic Parkway from four to six lanes in Yorktown (scheduled to begin in 2000) will lengthen the commuting time for students in northern Westchester to the Peekskill and Valhalla campuses until completion. Improvements on 100C at the entrance to WCC down to Virginia Road will also cause delays. ***Measures to indicate the temporary nature of these construction projects and to help abate their inconvenience are recommended.***

Where is Valhalla? This question will be explored in a countywide survey to be conducted next fall, but informal questioning indicates that the College's convenient and central location is not fully working for it.

To be sure, other factors may influence future enrollments at Westchester Community College, such as the development of distance learning, increased demand for remedial education, and more competition from four-year colleges for traditional WCC students. The demographic and economic trends discussed in the report, however, are sure to have an important impact, too.

Marcia M. Lee, Ph.D., Director  
Office of Institutional Research and Planning  
June, 1998





REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: A Formula For Writing Environmental Scans for Community Colleges
Author(s): Dr. Marcia M Lee
Corporate Source: Westchester Community College
Publication Date: 11/5/1999

II. REPRODUCTION RELEASE:

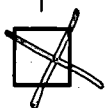
In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and 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: Marcia M Lee
Printed Name/Position/Title: A Formula for Writing Environmental Scans
Organization/Address: 15 Grasslands Road Valhalla, NY 10525
Telephone: 914-785-6589
E-Mail Address: Marcia.Lee@SUNYWC.EDU
FAX: 914-785-6486
Date: 10/22/00



### 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:

Send this form to the following ERIC Clearinghouse: <b>University of Maryland</b> <b>ERIC Clearinghouse on Assessment and Evaluation</b> <b>1129 Shriver Laboratory</b> <b>College Park, MD 20742</b> <b>Attn: Acquisitions</b>
--

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

**ERIC Processing and Reference Facility**  
1100 West Street, 2<sup>nd</sup> Floor  
Laurel, Maryland 20707-3598

Telephone: 301-497-4080

Toll Free: 800-799-3742

FAX: 301-953-0263

e-mail: [ericfac@inet.ed.gov](mailto:ericfac@inet.ed.gov)

WWW: <http://ericfac.piccard.csc.com>

