

TERRA STATE COMMUNITY COLLEGE
Fremont, OH 43420

Institutional Research
Monitoring Report

MEETING DATE: August 2007

TOPIC: Trends from Environmental Scanning FY2007

Overview of the Environmental Scanning Process

During Fiscal Year 2007, information was collected and monitored to be used in Terra's external environmental scanning process. Information selected was based on the potential impact to Terra and/or its service district. It was collected from the following: scanned articles from newspapers, magazines, or the Internet; completed survey results; or governmental/organizational research, such as census data or college demographics. Trends, which show a general direction of change over time, were the focus of this study; in particular, focus was placed on those trends directly relating to Terra's strategic ends. It should be noted that the majority of information found during the year continued to reinforce trends from Fiscal Years 2005 and 2006.

Continuing Trends:

- 1. National employment:** The need for employees possessing associate's degrees is increasing. This is due to both large growth areas in health care, information technology, and support services, as well as labor shortages in skilled technical jobs. Changes in the composition of the workforce indicate more women, greater numbers of ethnic workers, and older workers.
- 2. State and local employment:** Projections indicate a decline in the number of manufacturing jobs with an expansion in the field of healthcare and other service industries.
- 3. Service area demographics:** Within Terra's service district, there is a projected decline in the general population. There is an additional trend that the general population will include a greater percentage of senior citizens.
- 4. Growth in higher education:** There is continuing growth in higher education, both at two-year and four-year institutions.
- 5. Affordability in higher education:** Higher education is becoming less and less affordable. Financial constraints make it difficult for small communities to support off-campus centers.
- 6. Technology in education:** Technology is continuing to impact education and learners' expectations as it is used to support teaching and learning.

Following are updates or changes from the above trends:

Additional Trend Information for Trend #1, national employment: The chart for the fastest growing occupations was updated by the U.S. Department of Labor, with projections into 2014. New to the list were smaller employment fields of forensic science technicians, diagnostic medical sonographers, and cardiovascular technologists and technicians. Paralegals and legal assistants were also new to the listing.

Table 1

***FASTEST GROWING OCCUPATIONS, 2004-2014, U.S.
ON-THE-JOB OR ASSOCIATE'S DEGREE TRAINING NEEDED***

<i>Occupation title</i>	EMPLOYMENT 2004	EMPLOYMENT 2014	CHANGE IN NUMBER	CHANGE BY PERCENT
Home health aides	624,000	974,000	350,000	56%
Medical assistants	387,000	589,000	202,000	52%
Physical therapist assistants	59,000	85,000	26,000	44%
Dental hygienists	158,000	226,000	68,000	43%
Dental assistants	267,000	382,000	114,000	43%
Personal and home care aides	701,000	988,000	287,000	41%
Forensic science technicians	10,000	13,000	4,000	36%
Veterinary technologists and technicians	60,000	81,000	21,000	35%
Diagnostic medical sonographers	42,000	57,000	15,000	35%
Physical therapists aides	43,000	57,000	14,000	33%
Occupational therapist assistants	21,000	29,000	7,000	34%
Preschool teachers, except special education	431,000	573,000	143,000	33%
Cardiovascular technologists and technicians	45,000	60,000	15,000	33%
Hazardous materials removal workers	38,000	50,000	12,000	31%
Paralegals and legal assistants	224,000	291,000	67,000	30%

U.S. Department of Labor, www.bls.gov

Occupations with the largest job growth, 2004-2014, included the following:

- Retail salespersons with 736,000 additional jobs, or 17% change
- Registered nurses with 703,000 additional jobs, or 29% change
- Customer service representatives with 471,000 additional jobs, 23% change
- Truck drivers, heavy and tractor-trailer with 223,000 additional jobs, 12.9% change
- Maintenance and repair workers, general with 202,000 additional jobs, 15.2% change
- Medical assistants with 202,000 additional jobs, 52% change
- Executive secretaries and administrative assistants, 192,000 additional jobs, 12% change

Occupations with the largest job declines were all in the on-the-job training category. Jobs characterized in this category include typists, clerks, machine operators, farmers and farm workers, and secretaries (except legal, medical, or executive).

In two years' time, the fastest growing industries table has also been updated and now includes home health care services (with the highest average annual rate of change, but not on the previous fastest growing list). Also not previously on the fastest growing list were facilities support services; independent artists, writers, and performers; office administrative services; and outpatient, laboratory, and other ambulatory care services. Residential care facilities almost doubled the number of jobs and projected jobs from the prior table of 2002.

Table 2: FASTEST GROWING INDUSTRIES, U.S.

Industries with the fastest wage and salary employment growth, 2004-2014

INDUSTRY	2004 JOBS	2014 JOBS	CHANGE, 2004-14	AVERAGE ANNUAL RATE OF CHANGE, 2004-14
Home health care services	773,200	1,310,300	537,100	5.4%
Software publishers	238,700	400,000	161,300	5.3%
Management, scientific, and technical consulting services	779,000	1,250,200	471,200	4.8%
Residential care facilities	1,239,600	1,840,300	600,700	4.0%
Facilities support services	115,600	170,000	54,400	3.9%
Employment services	3,470,300	5,050,200	1,579,900	3.8%
Independent artists, writers, and performers	41,900	60,800	18,900	3.8%
Office administrative services	319,400	449,900	130,500	3.5%
Computer systems design and related services	1,147,400	1,600,300	452,900	3.4%
Outpatient, laboratory, and other ambulatory care services	836,100	1,160,400	324,300	3.3%

U.S. Department of Labor, www.bls.gov

Additional Trend Information for Trend #2, state and local employment: As shown in Table 3, which had been updated to include projections for 2014, the healthcare industry is still projected to lead the number of new jobs for the state.

Table 3: OCCUPATIONS WITH HIGH EMPLOYMENT PROSPECTS IN OHIO

Occupations paying at least \$12.00 an hour and having at least 75 annual openings, 2004-2014

INDUSTRY – OCCUPATIONS REQUIRING AN ASSOCIATE DEGREE	2004 JOBS	2014 JOBS	CHANGE, 2004-14	AVERAGE ANNUAL RATE OF CHANGE, 2004-14
Computer Support Specialists	15,760	18,210	2,450	15.5%

Electrical & Electronic Engineering Technicians	5,580	5,840	260	4.7%
Industrial Engineering Technicians	3,660	3,830	170	4.6%
Mechanical engineering Technicians	3,290	3,450	160	4.9%
Paralegals and Legal Assistants	5,460	7,000	1,540	28.2%
Registered Nurses	107,010	130,920	23,910	22.3%
Respiratory Therapists	5,320	6,350	1,030	19.4%
Medical & Clinical Laboratory technicians	5,080	6,120	1,040	20.5%
Dental Hygienists	6,070	7,810	1,740	28.7%
Diagnostic Medical Sonographers	1,840	2,410	570	31.0%
Radiologic Technologists and Technicians	9,620	11,760	2,140	22.2%
Medical Records & Health Information Technicians	6,530	7,860	1,330	20.4%
Occupational Therapist Assistants	2,010	2,560	550	27.4%
Physical Therapist Assistants	4,430	5,770	1,340	30.2%

Ohio Job & Family Services, lmi.state.oh.us

Similar to trend #1, the composition of the workforce is changing to an older workforce, along with a higher percentage of females.

Terra's service district is split between two economic development regions for the state. Sandusky County and Ottawa County are in the Northwest Ohio region, also including the counties of Williams, Defiance, Fulton, Henry, Lucas, Wood, and Erie. Seneca County is included in the North Central region with Huron, Wyandot, Crawford, Marion, Morrow, Richland, Ashland, and Knox Counties. Projections for 2002-2012 by the Ohio Department of Jobs and Family Services indicated that there should be 9.0% growth in the Northwest region (42,700 jobs) and 8.6% growth in the North Central region (19,900 jobs).

Within the Northwest region, the following projections are available to 2012:

- Manufacturing is projected to lose 4,500 jobs from 2002, a -5.0% change
- Trade, transportation, and utilities are projected to gain 10,800 jobs, 12.8% change
- Education and Health Services are expected to gain 10,200 jobs, 17.6% change
- Professional and Business Services are projected to gain 7,500 jobs, 19.4% gain
- Leisure and Hospitality Industry are projected to gain 6,000 jobs, 13.2% change
- Financial activities are expected to gain 2,800 jobs, or 17.6%

Within the North Central region, the following projections are available to 2012:

- Manufacturing is projected to lose 600 jobs from 2002, a -1.0% change
- Trade, transportation, and utilities are projected to gain 3,800 jobs, 11.6% change
- Education and Health Services are expected to gain 5,200 jobs, 20.5% change

- Professional and Business Services are projected to gain 3,300 jobs, 29.5% gain
- Leisure and Hospitality Industry are projected to gain 2,200 jobs, 12.0% change
- Financial activities are expected to gain 600 jobs, or 9.4%

Table 3: OCCUPATIONS WITH HIGH EMPLOYMENT PROSPECTS IN NORTHWEST ECONOMIC DEVELOPMENT REGION

Occupations paying at least \$12.00 an hour and having at least 75 annual openings, 2004-2014

INDUSTRY – OCCUPATIONS REQUIRING AN ASSOCIATE DEGREE	2004 JOBS	2014 JOBS	CHANGE, 2004-14	AVERAGE ANNUAL RATE OF CHANGE, 2004-14
Computer Support Specialists	780	940	160	20.5%
Registered Nurses	8,700	9,940	1,240	14.3%
Respiratory Therapists	550	670	120	21.8%
Dental Hygienists	470	650	180	38.3%
Radiologic Technologists and Technicians	720	790	70	9.7%
Medical Records & Health Information Technicians	760	990	230	30.3%
Physical Therapist Assistants	540	780	240	44.4%

Ohio Job & Family Services, lmi.state.oh.us

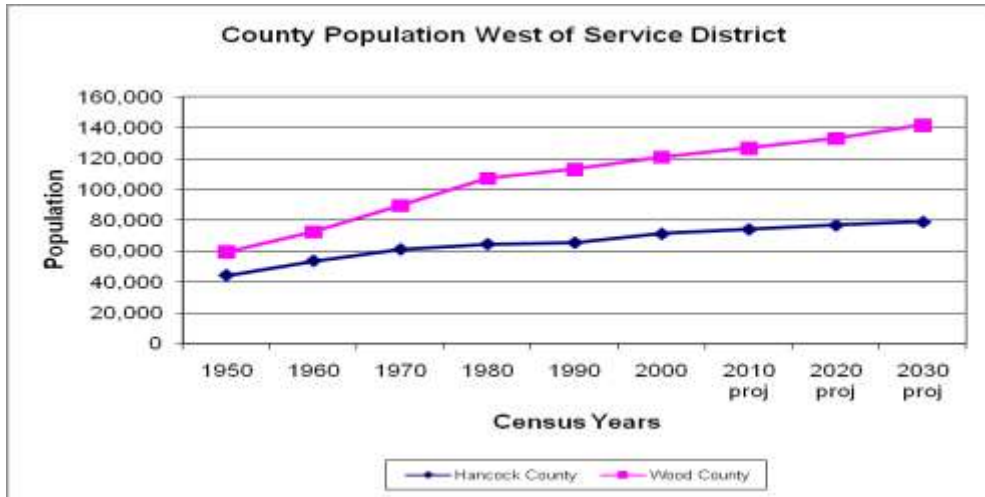
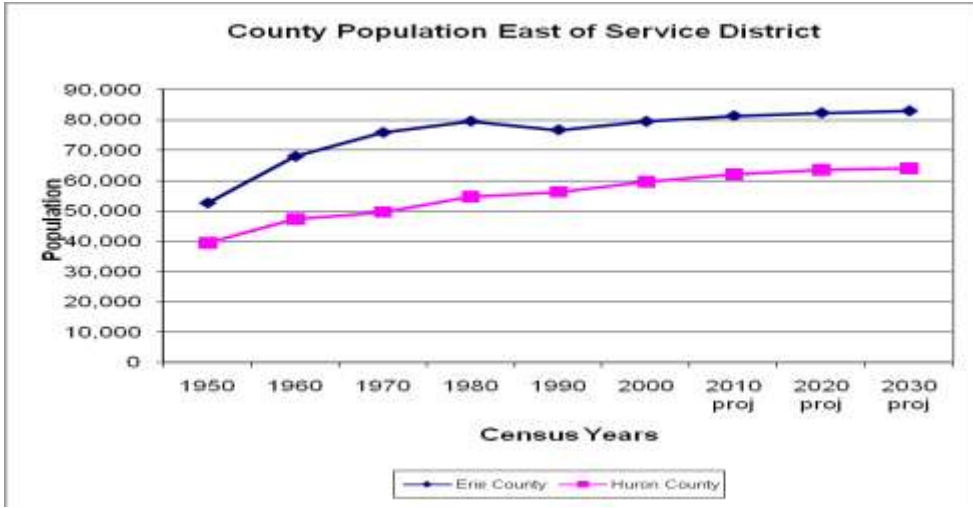
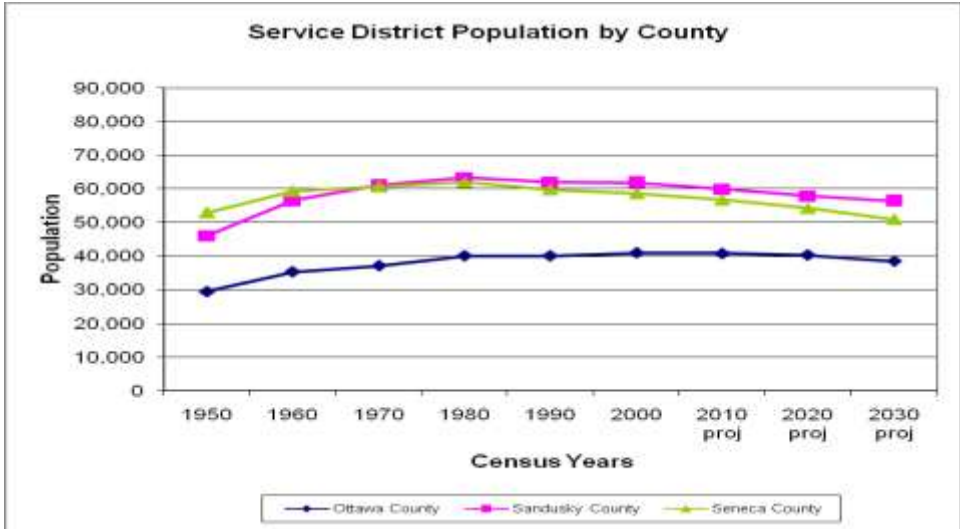
Table 3: OCCUPATIONS WITH HIGH EMPLOYMENT PROSPECTS IN NORTH CENTRAL ECONOMIC DEVELOPMENT REGION

Occupations paying at least \$12.00 an hour and having at least 75 annual openings, 2004-2014

INDUSTRY – OCCUPATIONS REQUIRING AN ASSOCIATE DEGREE	2004 JOBS	2014 JOBS	CHANGE, 2004-14	AVERAGE ANNUAL RATE OF CHANGE, 2004-14
Registered Nurses	3,220	4,020	800	24.8%
Respiratory Therapists	240	310	70	29.2%
Dental Hygienists	330	450	120	36.4%
Medical Records & Health Information Technicians	210	280	70	33.3%

Ohio Job & Family Services, lmi.state.oh.us

Additional Trend Information for Trend #3, service area demographics: Although negative growth continues to be projected for the service district, population growth is expected for contiguous counties east and west of the service district (Ohio Department of Development, 2005 Ohio County Profiles).



Additional Trend Information for Trend #4, growth in higher education: In Ohio, there continues to be growth in higher education; there was a 15% increase in full-time equivalent enrollments from fall 1998 to fall 2005. The largest growth during that time period came from community and technical colleges (32% increase) and university regional campuses (23% increase).

Additional Trend Information for trend #6, technology in education: A new national study (Degrees of Opportunity), which related the attitudes of adults towards continuing their education, indicated that more than half of adults aged 25 to 60 would like to pursue additional education. This equates to more than 70 million adults. However, the study also found that time management was the greatest barrier, as reported by 73% of the survey respondents. The need for flexibility is, in part, what is attributed to the growth in distance learning. The National Center for Education Statistics has found that online learning growth is 10 times faster than that of traditional postsecondary education. In fact, enrollment in online learning programs has grown at an average rate of 35 percent each year from 2002 to 2005. Research by the Sloan Consortium indicated that there were 3.2 million college students enrolled in at least one online course in 2006.

Virtual campuses are now being introduced as the future of online education. According to eSchool News, the University of New Orleans is using "Second Life", an online virtual world to keep instruction going even in times of emergencies and disasters. Other colleges (there are now 700 educators using Second Life) are buying property and setting up their virtual colleges due to the popularity of teaching and socialization practices among educators and youth organizations. Currently, more than 1.2 million people have joined Second Life across the world.