Industry Recognized Certification: A PATHWAY TO REENTRY



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Industry Recognized Certification: A Pathway to Reentry 1st Edition

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Management & Training Corporation (MTC) is an international corporation dedicated to helping people realize their learning potential. MTC creates nurturing environments in which education is encouraged and rehabilitation is recognized. MTC manages and/or operates 24 Job Corps centers in 18 states for the U.S. Department of Labor, preparing disadvantaged youth for meaningful careers. MTC also operates 20 contracted correctional facilities across the country with approximately 25,000 beds under contract. In addition, MTC has expanded its education and vocational expertise into the international arena, working in countries such as Palestine, Iraq, Sudan, Tunisia, China and Mongolia.

The MTC Institute is the research division of MTC, which is dedicated to promoting innovations and exemplary practices and projecting trends that are relevant to job training and corrections. The work of the Institute is geared toward a broad audience including policy makers, educators, researchers, practitioners, state and federal officials, workforce development entities, correctional agencies, and Job Corps centers.

TABLE OF CONTENTS

Introduction	1
Need for Skilled Labor	1
Need for Certification	2
Certifications in Corrections	3
Available Certifications	4
Certifications in Automotive	4
Certifications in Construction	5
Certifications in Manufacturing	6
Certifications in Leisure and Hospitality	6
Certifications in the Retail Industry	6
Possible Certifications	7
Certification in Geospatial Industry	7
Certifications in Information Technology	7
Certification in Transportation	7
Certifications in Water Treatment	8
Conclusion	9
Appendix A – Certifying Organizations	10
Appendix B – Employment Opportunities and Median Wage	11
Appendix C – What is a Career Readiness Certificate (CRC)?	12
Appendix D – Internet Use in Prisons (Limited, Secure and Virtual)	13

Industry Recognized Certification: A Pathway to Reentry

INTRODUCTION

Programs designed to educate and train inmates for successful entry into the workforce must target skill and labor deficits within particular areas of industry. Today's labor market places great value on industry-recognized technical certifications. In a rapidly changing world, certifications are an effective way for educators, former inmates, and employers to communicate about skill needs, training, and opportunities, particularly in high-growth occupations. The reentry success of inmates requires that they develop skills consistent with industry standards and that they obtain recognized and marketable certifications, which employers often use as one important criterion for hiring.¹

Industry-based certifications (i.e., developed in partnership with and fully recognized by the business community) are an individual's passport into the new economy. Employers, as members of a particular industry base, participate in setting the standards and creating criteria for certificate acquisition. A certification signals to an employer a particular set of skills and expected level of productivity.

Increasingly linkages between formal technical job training based on industry-established skill standards and assessment of performance are changing the dynamics of the certification process in ways that will affect individuals entering the workforce. Industries are working in tandem with academic institutions and government agencies to set skill standards and increase familiarity with new technology.²

The variability in certification value in terms of industry/employer participation and certification program quality makes it important to determine which technical certifications best matches the needs of employers. Once this information is acquired, Departments of Corrections can determine the training programs which are linked to high demand occupations that will result in inmates reaching some level of economic self-sufficiency and opportunities for advancement. This requires correctional facilities, working together with industry and the communities, to ensure that training programs align with labor market needs. By providing certification to its inmates, states can see greater success for inmates once released and a reduction in recidivism.³ Further, research indicates that there is a positive per participant return on the investment of almost \$14,000 (net present value in 2006 dollars) for those involved in vocational education in prison, not to mention a reduction in crime outcomes of 9%.⁴

THE NEED FOR SKILLED LABOR

There are 8,000 Baby Boomers turning 65 years of age daily⁵ and about 45% of the workforce is planning to retire over the next 5 years;⁶ employers have to deal with a tidal wave of retirees. Existing jobs nationwide have a common focus: there is huge demand for more education. The U.S. economy needs everyone to become part of the skilled workforce, particularly those persons who do not have a high school diploma, especially in light of the fact that by the year 2014, 78% of all jobs will require a post-secondary education.⁷ The demand for new credentials and certifications is being acted upon daily, with community colleges being funded to provide training and other programs at a historic pace.

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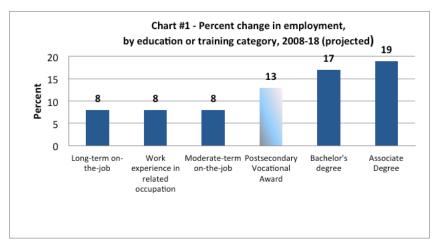
America faces a future in which we have too few workers and especially, too few skilled workers. Businesses are extremely challenged to meet the rising demand for a skilled workforce with a diminishing U.S. workforce. "America faces a future in which we have too few workers and especially, too few skilled workers."⁸ According to the Bureau of Labor Statistics, total employment is expected to increase by 15.3 million, from 150.9 million in 2008 to 166.2 million in 2018.⁹ Yet the 0.8% annual growth rate in the workforce needed to fill the jobs is lower than the 1.2% annual growth rate registered during the previous 10-year period; the civilian labor force is projected to increase only by about 13 million, reaching 164.2 million in 2016.¹⁰

In the near future, it is therefore not only possible, but probable that an inmate with a non-violent criminal history, reasonable prison record with active programming, resulting in a high school diploma or GEDand industry-recognized certification can be a demand hire upon release.

THE NEED FOR CERTIFICATION

The value of industry-recognized certifications should not be underestimated (See Chart 1).¹¹ In a study conducted by the Information Technology Association of America, vendor or industry certification was found to be as important as a bachelor's degree to information technology (IT) companies, while non-IT companies placed certification only just below a bachelor's degree.¹² Certification is important economically and psychologically. Certifications have become so important that that National Association of Manufacturers created a certification process that contains multiple layers. The more certifications, the more college credit earned until all certifications are complete and work is done to complete a college degree in the specific industry.¹³ This type of credential is referred to as a "stackable credential" because every new certification gained is based on what was gained previously, building to more and more education and knowledge. Stackable credential allows for a variety of start and stop locations in gaining new knowledge in a field, and not just the typical two to four year program that needs to be completed to gain a degree.

As the demand for skilled labor continues to outpace supply, community colleges have emerged as a major partner in economic development by providing postsecondary education and training,



Certifications have become so important that National Association of Manufacturers created a certification process that contains multiple layers (i.e. stackable certificates). The more certifications, the more college credit earned until all certifications are complete and work is done to complete a college degree in the specific industry. offering an increasing number of short-term technical job training programs with portable certificates. Increasing student success begins with programs that train according to skill standards in industries and occupations in demand. Students must be provided with essential knowledge and skills to enable them to pass the certification exams in key, high-growth technical areas.

Over a thousand certification programs exist in the U.S., qualifying professionals from crane operators to energy efficiency experts, from financial planners to automobile technicians. It is important that professionals in corrections and career technical training (i.e. vocational training) raise the bar so that inmates complete programs which prepare them to reentry society with one less hurdle, prepared to become a taxpayer.

Certification programs in correctional environments accomplish three important goals:

- 1. They provide a measure of protection to prospective employers by giving the inmates a credential by which they can be judged for occupational competency;
- 2. They provide skilled and certified applicants with a way to distinguish themselves from their competition; and
- 3. By typically improving quality, they improve the public perception of the given occupation, helping increase the industry's prominence.

While an industry certification provides increased probability to gain employment there are other certifications that can also assist inmates with employment, pursuits once released. The most prevalent is the National Career Readiness Certification (NCRC) from ACT. Many states, workforce systems, and businesses across the country have adopted this certificate as part of their workforce systems as a base or foundational certification. This certification provides employers with an assessment of proven skills needed to perform well in thousands of jobs. (See Appendix B)

CERTIFICATIONS IN CORRECTIONS

Incorporating any vocational programming into a correctional facility requires more detail than implementing the same program in a regular school. The needs for safety and security are always paramount when creating programming in any correctional facility. These needs are even more so when possibly using tools that can easily be used as weapons. Cost becomes a factor; equipment will need to be purchased, space available for the training, and an instructor skilled in that specific trade, not to mention the cost of the test to gain the certification.

While these factors may pose extra obstacles to vocational training, it can be to overcome with the correct leadership, policies and procedures in place. New technology has also brought learning vocational trades into the virtual world. Welding, truck driving, and others have adopted the use of computers and virtual environments to enable instruction with less material and ongoing costs.¹⁴ This also provides a National Career Readiness Certification (NCRC) from ACT has been adopted by many states, workforce systems, and businesses across the country have adopted this certificate as part of their workforce systems as a base certifications. (See Appendix A) safer and secure method of teaching in a correctional environment.

While the certifications listed can assist an inmate successfully overcome a skills deficit, there are other obstacles which inmates face upon release that can be reduced or eliminated all together. Some of these obstacles include but are not limited to:

- No official identification (i.e. drivers license, or state issued id)
- Limited financial resources
- Lack of internet skills needed to gain employment and access community services
- Lack of housing
- Access to drug treatment

The industry-recognized certifications mentioned in this report have been reviewed for:

- Safety and security,
- Attainability by inmates, and
- Inmate employability once released.

The reality is that inmates are, by law, blocked from employment in certain industries and occupations. Staff must take this into account when choosing vocational offerings in corrections. Furthermore, while many certifications do not require a specific amount of education, it is in the best interest of inmates to at least have a high school diploma or GED, thus increasing their chances for success once released.

For links to the various certifying organizations, please see Appendix A. Information is also available on the employment opportunities and median wages in Appendix B. In addition, the drive to do more with less in corrections will inevitably demand that administrators critically examine the prohibition related to the limited, secure use of the internet within prisons to facilitate education and vocational training of inmates. New programs allow for downloading of complete internet pages and allowing inmates to access all content from the downloaded websites with no internet connection required.¹⁵ For more information on that topic please review an excerpt from a recent article in the ACA's Corrections Today in Appendix C.

AVAILABLE CERTIFICATIONS

The following certifications have the greatest potential for inmates to attain them and also gain employment upon release.

CERTIFICATIONS IN AUTOMOTIVE

The purpose of the automotive technician training certification program is to improve the quality of training offered at secondary, postsecondary, public, and proprietary schools in order to meet the demand for well-trained, employable, entry-level technicians. Automotive Service Excellence (ASE) is the most widely recognized certification in the automotive service field. National Automotive Technicians Education Foundation (NATEF) grants accreditation to programs that

The drive to do more with less in corrections will inevitably demand that administrators critically examine the prohibition related to the limited, secure use of the internet within prisons to facilitate education and vocational training of offenders. meet established standards, comply with the evaluation procedure, and adhere to established policies.¹⁶ These programs then can offer ASE certification to students once training and testing is complete.

The following automotive certifications are available and represent positions or skills that can bring opportunities for advancement into positions with projected job growth.

Occupation	Certification	Exam	Education	Work Requirement	Certifier
Automotive Technician	Automobile Service Technician	Yes, Written	NR	2 yrs*	National Institute for Automotive Service Excellence (ASE)
Autobody Technicians	Automobile Collision Repair & Refinish	Yes, Written	NR	2 yrs*	ASE
Truck Technician	Medium/ Heavy Truck Technician	Yes, Written	NR	2 yrs*	ASE

* May be gained by working at a correctional facility garage/auto shop.

• CERTIFICATIONS IN CONSTRUCTION

The construction industry engages in the building or engineering of projects (e.g., highways, airports, bridges, tunnels, communications facilities, and utility systems). Construction work may include new work, additions, alterations, or maintenance and repairs, and it involves a wide range of occupational opportunities.

The National Center for Construction Education and Research (NCCER) is a not-for-profit education foundation founded in 1995 by construction companies and several national construction associations. NCCER was created to address the severe workforce shortage facing the industry and to develop standardized curricula to ensure a skilled, qualified workforce. Forty technical curricula and assessments are offered through NCCER. Training must be delivered through an accredited training partner or have the trainer certified through NCCER.

The following construction certifications are available and represent positions or skills that can bring opportunities for advancement into positions with projected job growth.

Occupation	Certification	Exam	Education	Work Requirement	Certifier
Carpenter	The National Center for Construction Education and Research (NCCER) Core, Carpentry Level 1	Yes, Written and Practical	NR	NR	The National Center for Construction Education and Research (NCCER)
Heating, Ventilation, Air- Conditioning	NCCER Core, HVAC Level 1	Yes, Written and Practical	NR	NR	NCCER
Plumbing	NCCER Core, Plumbing Level 1	Yes, Written and Practical	NR	NR	NCCER
Electrician	NCCER Core, Electrical Level 1	Yes, Written and Practical	NR	NR	NCCER

The National Center for Construction Education and Research was created to address the severe workforce shortage facing the industry and to develop standardized curricula to ensure a skilled, qualified workforce. New technology will play a key role in the future of high-tech manufacturing. The rapid advances in tools, materials, and technology are providing new opportunities across a wide occupational venue for those with the proper skills and interest.

• CERTIFICATIONS IN MANUFACTURING

New technology will play a key role in the future of high-tech manufacturing. The rapid advances in tools, materials, and technology are providing new opportunities across a wide occupational venue for those with the proper skills and interest.

The following manufacturing certifications are available and represent positions or skills that can bring opportunities for advancement into positions with projected job growth.

Occupation	Certification	Exam	Education	Work Experience Required	Certifier
Welding	Certified Welder Level I – Entry Welder Level II – Advanced Welder	Yes, Written and Practical	NR	NR	American Welding Society
Sheet Metal Operator	Precision Sheet Metal Operator	Yes, Written	NR	NR	Fabricators & Manufacturers Association, International

• CERTIFICATIONS IN LEISURE AND HOSPITALITY

The following leisure and hospitality certifications are available and represent positions or skills that can bring opportunities for placement into positions with projected job growth.

Occupation	Certification	Exam	Education	Work Experience Required	Certifier
Cook	Serve Safe	Yes, Written	NR	NR	ServSafe
Cook	Pro Start	Yes, Written	NR	400 Hours *	National Restaurant Association
Custodian	Custodial Maintenance	Yes, Written	NR	NR	Custodial Maintenance Institute (CMI)

* May be gained by working at a correctional facility kitchen/pastry program.

• CERTIFICATIONS IN THE RETAIL INDUSTRY

The retail industry is multifaceted, crossing many sectors. Rather than a one specific job, focusing on customer service captures a core function for a range of entry-level through first-line supervisor positions across the sales and service industries. This includes workplaces such as retail stores, distribution centers, warehouses, hair salons, rental car companies, and more. Other industries that value excellent customer service like hospitality, food and beverage, finance, call centers, airlines, and others are tuned into the need for customer service standards and the need to meet them.

The following retail certifications are available and represent positions or skills that can bring opportunities in positions that have projected job growth due to replacement needs.

Occupation	Certification	Exam	Education	Work Experience Requirement	Certifier
Sales and Service	National Professional Certification in Customer Service	Yes, Written	NR	NA	National Retail Federation Foundation
Sales and Service	National Professional Certification in Sales	Yes, Written	NR	NA	National Retail Federation Foundation

POSSIBLE CERTIFICATIONS

The following certifications have the potential for inmates to attain them and also gain employment upon release. However, there may be obstacles for inmates to gain these certifications (i.e. equipment access, computer programs, etc.) depending on legislation or regulations in the particular the state or jurisdiction and/or correctional agency policy.

• CERTIFICATION IN GEOSPATIAL INDUSTRY

Geographic Information Systems (GIS) is a technology that integrates database operations like queries and statistical analysis with maps to solve problems and make decisions. GIS software is a computer-based analysis and mapping tool widely used by schools, governments, and businesses.

Occupation	Certification	Exam	Education	Work Experience Required	Certifier
Geographic information system (GIS) Technician	Space	Yes, Written and Practical	NR	NR	Digital Quest, Inc.

*With the use of a computer the Practical exam can be completed at the correctional facility

• CERTIFICATIONS IN INFORMATION TECHNOLOGY

The rapid rate at which technology is changing requires that we alter our traditional conception of information technology training to include knowledge of computer software as well as the hardware and wiring of systems and machines. The ability to use computer software has become a necessity; inmates who are able to understand the systems and technology have an added advantage in the marketplace.

Occupation	Certification	Exam	Education	Work Experience Required	Certifier
Field Service Technician, PC or Support Technician	A+	Yes, Written anð Practical*	NR	NR, but usually achieved after working in the industry	COMPTIA
Office Specialist	Microsoft Office Specialist	Yes, Written and Practical*	NR	NR	Certiport
Drafter	Computer Aided Drafting	Yes, Written and Practical*	HS/ GED	NR	College Program

The following certifications represent areas of projected job growth related to the information technology industry.

* The Practical exam will probably need to be completed post release

• CERTIFICATION IN TRANSPORTATION

Incorporating a number of innovative technologies—including Radio Frequency Identification (RFID) tags and sensors, biometrics technologies, and Global Positioning Systems (GPS)—Transportation and security are integrating technology options to ensure trucks safe journey from beginning to end. This process begins with ensuring drivers are skilled and qualified.

The following transportation certification is available and represent positions or skills that can bring opportunities for advancement into positions with projected job growth.

Occupation	Certification	Exam	Education	Work Experience Required	Certifier
Truck Driver	PTDI Certificate of Attainment	Yes, Written and Practical	HS/ GED	NR	Professional Truck Driver Institute Inc.

• WATER TREATMENT

Water is one of our society's most important resources. It is a complicated process to convert the wastewater in our drains and sewers into a form that is safe to release into the environment.

The following water treatment certifications are available and represent positions or skills that can bring opportunities for advancement into positions with projected job growth.

Occupation	Certification	Exam	Education	Work Experience Requirement	Certifier
Waste water treatment operator	Water Treatment Operator Level 1	Yes, Written	HS/ GED	NR	American Water Works Association (AWWA)
Waste water treatment operator	Water Treatment Operator Level 2	Yes, Written	HS/ GED	NR	AWWA
Waste water treatment operator	Water Treatment Operator Level 3	Yes, Written	HS/ GED	NR	AWWA

CONCLUSION

As stated earlier, reentry success of inmates requires that they develop skills consistent with employer needs based on industry standards and that they obtain recognized and marketable certifications. Inmates have too many hurdles to overcome once released; a certification will provide a foundation upon which they can build and demonstrate to employers that they are ready to go to work in their field and add value to the business. Furthermore obtaining a certification will increase the probability of gaining employment and reducing the risk of re-offending.

As states begin to tackle ever growing correctional budgets and recidivism is becoming more and more in the spotlight. Certifications are one way to reduce recidivism by providing inmates with the skills and qualifications that industries want from their employees.

While the economy still struggles to gain its footing, there are still millions of jobs unfilled due a mismatch of skills needed by employers and skills that people possess. While this mismatch is most likely temporary, the growing need for workers once the economy returns will be much larger. The baby boom generation is beginning to retire in large numbers and the retirement will accelerate when the economy more fully improves. However, the country does not have enough skilled workers to fill vacant positions, and even more pressing is the need for skilled workers to take the place of baby boomers when they retire.

Many released inmates can be a pool of skilled workers if properly educated and trained while incarcerated. States have begun to shift form strictly hard on crime laws to a more holistic approach to incarceration, knowing that the majority of inmates will be released at some point and it is better to have those inmates gain employable skills while incarcerated than learn to be better criminals. Certifications are an important step that correctional systems can make to increase the rate of successful reentry of inmates. Many released inmates can be a pool of skilled workers if properly educated and trained while incarcerated.

APPENDIX A

CERTIFYING ORGANIZATIONS

National Center for Construction Education and Research (NCCER) - http://www.nccer.org/ National Automotive Technicians Education Foundation (NATEF) - http://www.natef.org/ American Welding Society - http://www.aws.org/w/a/ Fabricators & Manufacturers Association, International - http://www.fmanet.org/ ServSafe - http://www.servsafe.com/ National Restaurant Association - http://www.restaurant.org/index.cfm Custodial Maintenance Institute (CMI) - http://www.cminstitute.net/ National Retail Federation Foundation - http://www.nrf.com/ COMPTIA - http://www.comptia.org/home.aspx Certiport - http://www.certiport.com/portal/desktopdefault.aspx?TZ=-6 Professional Truck Driver Institute Inc. - http://www.nttp://www.awwa.org/ Green Certification and Training - http://www.mtctrains.com/institute/publications

APPENDIX B¹⁷

EMPLOYMENT OPPORTUNITIES AND MEDIAN WAGE

SOC Code	Occupation	Job Openings from 2008- 2018	National Median Hourly Earnings
Automotive			
49-3023	Automotive Service Technicians and Mechanics	148,692	\$16.88
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	61,642	\$18.94
49-3021	Automotive Body and Related Repairers	43,067	\$17.81
Construction			
47-2031	Carpenters	173,783	\$18.72
47-2111	Electricians	174,917	\$22.32
47-2152	Plumbers	106,017	\$21.94
49-9021	HVAC Mechanic and Installer	56,817	\$19.08
Manufacturing			
47-2211	Sheet Metal Workers	41,525	\$19.37
51-4121	Welders	125,742	\$16.13
IT			
15-1041	Computer Support Specialist	163,100	\$21.29
Leisure and Hospitality			
51-3011	Baker	28,925	\$11.42
35-2010	Cook	541,517	\$10.80
Other			
53-7051	Truck And Tractor Operators	323,092	\$13.98
51-8031	Water and Liquid Waste Treatment Plant and System Operators	26,275	\$18.48
17-3031	Surveying and Mapping Technician	41,300	\$25.00
17-3010	Drafters	64,800	\$21.81
	TOTAL	2,015,108	

APPENDIX C

WHAT IS A CAREER READINESS CERTIFICATE (CRC)?¹⁸

A CRC provides an employer a look into attributes that a prospective employee has, to see if they are qualified and will fit into the position. ACT is the most reputable assessor of the National CRC and how it can be used; therefore they will be used as the example from here on. (It should be noted that States which have a CRC may not call it an ACT program but are using ACT assessments.) To create a score for the National CRC, ACT currently uses three of their WorkKeys® assessments;

- Applied Mathematics,
- Reading for Information, and
- Locating Information.

After profiling over 15,000 jobs across the country, ACT found that these three areas are most important to the jobs profiled. These assessments are graded on a scale from 1 to 6. A person needs to score at or above a set assessment cut off to attain a certain level of certificate (see table).¹⁹ Some states are beginning to issue a Platinum certificate for scores of 6 on all three assessments. Thus far, nationwide, there have been over 984,520 certificates issued (which does not include State specific credentials such as the Florida Ready To Work) and that number is continually growing as more employers and trade associations learn about the system and seek better ways to find skilled, career ready employees.²⁰

CRC Level	Scores Needed	Nationwide Total Certificates Issued (as of Mar 28, 2011)
Platinum	At least a 6 on all three assessments	4,668
Gold	At least a 5 on all three assessments	194,377
Silver	At least a 4 on all three assessments	538,596
Bronze	Bronze At least a 3 on all three assessments	

That is one of the many reasons the National Association of Manufacturers (NAM), is using the CRC

as their uniform entry certification for NAM endorsed credentials. The National Center for Construction Education and Research (NCCER) has also affiliated with this system to stack its credentials on the foundational CRC. In addition, many colleges nationwide have been using the CRC and the WorkKeys® training in an effort to help students demonstrate skill levels to employers.

The higher the scores on the assessments the more jobs the person is a better fit for. Does this mean that a person who gains a Bronze is doomed to mediocrity? Hardly, all that it means is that the person is currently at a Bronze level and with more education can gain a higher level, which equates to a greater number of job prospects. Prisons already train inmates for many of the jobs identified under the list of jobs that a bronze certificate covers and a number of positions included in the silver, with some of the gold jobs too.

ACT is responsible for the creation of the domestically portable, National Career Readiness Certificate (NCRC). When someone takes the ACT assessments, whether a CRC or NCRC, they are given a code and a website which can be shared with employers anywhere to provide an explanation of what the certificate means and how it applies to a variety of jobs. Most importantly, the personalized Web page provides information on the certificate level the applicant attained and other important information about the knowledge and skills the applicant brings to a workplace.

APPENDIX D

INTERNET USE IN PRISONS (LIMITED, SECURE AND VIRTUAL)

"The following excerpt from *Expanding Distance Learning Access in Prisons: A Growing Need* published in the August 2009 edition of American Correctional Association's Corrections Today, magazine is being included with permission from ACA.

"The current state of Web-based educational tools and resources ranges from existing electronic access to literature and Web pages, to newly developed and advanced cognitive education and tutorial systems.

"It was noted in another research report that the rural nature of correctional facilities can provide a positive environment to derive cost-effectiveness from the delivery of programming through the Internet. Researchers considered six case studies, finding that "where there are high levels of interactivity using the Internet and the use of pre-existing Web-based resources, the costs are often lower or at least not greater than traditional classroom instruction." Further, "students rate effectiveness [high levels of interactivity using the internet] more highly compared with conventionally taught courses."²¹

"Distance learning programs today are continually improving. With more sophisticated support and powerful delivery media, Internet-based courses have been found to produce improved "learning outcomes that are, on average, slightly but significantly better than learning outcomes in comparable face to face courses."²²

"Today, the Internet is a part of daily life for finding directions, applying for jobs, paying bills, buying groceries, taking classes, and communicating with employers, friends and family. Access to online resources — and the skills to use them effectively — is an important part of surviving in an information society, as well as achieving personal goals.

"There are intelligent systems that use natural language processor technologies to automate the detection of inappropriate language, statements and even images on the Internet. Such cyber monitors can alert for any overt acts and perhaps even coded ones that deviate from standard language parameters. What will be required is the engineering of such intelligent systems for use in corrections applications.

"The time to pilot the Internet within prisons is now. To implement such an initiative, the profession needs to:

- Ensure the system is secure;
- Develop strategies to educate and calm the fears of administrators and public policy makers; and
- Pilot and publicize the successful application of Internet technology in prisons, developing a track record.

"The nation needs all ex-offenders to join the work force. However, with most jobs requiring education beyond high school, those who are undereducated face a life of economic disadvantage. Without education and training, these ex-offenders, many of whom are minorities, will remain a huge tax burden, stressing state and federal budgets."

NOTE: A reentry program at the Lake Erie Correctional Institution has been using WEB SITE DOWNLOADER. This inexpensive program enables entire Websites and pages to be downloaded, which could include educational and vocational materials, subject to copyright rules, to a virtual Website. The internet WebPages could then be used by inmates without actually accessing the internet. (URL is http://www.web-site-downloader.com/entire/)

ENDNOTES

¹ Retrieved June 23, 2011 from http://www.whycertify.com/ While there are many reasons to gain certification this website provides a short concise list.

² Workforce Excellence Network. (2002). Workforce excellence knowledge series: Using skill standards & certification in Workforce Investment Board programs. Washington, DC: Workforce Excellence Network. Formal organizations and initiatives continue the work of the National Skills Standards Board (NSSB), including the National Association of Workforce Boards, state-sponsored Skill Standards Working Groups, and Industry sponsored organizations.

³ Aos, S. (2006, October). Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates. Washington State Institute for Public Policy. Retrieved June 26, 2011 from http://www.wsipp.wa.gov/rptfiles/06-10-1201. pdf.

⁴ Ibid.

⁵ AARP – Jan / Feb 2011 Vol 52 No 1

⁶ Jones, R. T. (2011). New Mission Less Money: The Changing Role of Community College Workforce Development. Presentation at the AACC Annual Conference. Retrieved from http://aacc.confex.com/aacc/2011am/webprogram/Presentation/Session2855/bobjones. pdf

⁷ Council on Competitiveness (2008). Thrive. Retrieved 1/6/2009 from http://www.compete.org/images/uploads/File/PDF%20Files/Thrive.%20The%20Skills%20Imperative%20-%20FINAL%20PDF.PDF

⁸ Gunderson, S., Jones, R., & Scanland, K. (2004). The jobs revolution: Changing how America works. Washington, DC: Copywriters, Inc.

⁹ Bartsch, K. J. (2009). The Employment Projections for 2008 – 18. Bureau of Labor Statistics (Nov. 2009). Retrieved December 14, 2009 from http://www.bls.gov/opub/mlr/2009/11/art1full.pdf

¹⁰ Toossi, M. (2007). Labor force projections to 2016: more workers in their golden years. Retrieved 5/19/2008, from http://www.bls. gov/opub/mlr/2007/11/art3exc.htm

¹¹ Bureau of Labor Statistics, Occupational Ooutloo Handbook. Retrieved July 1, 2011 from http://www.bls.gov/oco/oco2003.htm

¹² Information Technology Association of America. (2001). When can you start? Building better information and technology skills and careers. Arlington, VA: Author.

¹³ National Association of Manufactures. Retrieved 4/30/2010 from http://www.nam.org/Communications/Articles/2009/05/ManufacturingInstituteGatesFoundation.aspx

¹⁴ Many industries are going to virtual instruction here are a few links to such virtual instruction products. Lincoln Electric http:// www.lincolnelectric.com/en-us/equipment/training-equipment/Pages/vrtex360.aspx Hawkeye Community College, Waterloo IA, provides training in a variety of fields that use simulators http://www.hawkeyecollege.edu/students/technology/advanced-technology/default.aspx

¹⁵ Personal interview with Paul Compton, June 30, 2011.

¹⁶ NATEF retrieved June 21, 2011 from http://www.natef.org/

¹⁷ Data retrieved from US Department of Labor, Bureau of Labor Statistics. Occupational Outlook Handbook, 2010-11 Edition, Job openings calculated by MTC using BLS data.

¹⁸ ACT National Career Readiness Certificate. Retrieved June, 23, 2011 from http://www.act.org/certificate/index.html

¹⁹ Personal interview with Dr. Tom Kyte, Senior Research Associate, ACT on June 30, 2011.

²⁰ Ibid.

²¹ Curtain, R. 2002. Online delivery in the vocational education and training sector: Improving cost effectiveness. National Centre for Vocational Education Research (NCVER): Australian Government. Available at www.ncver.edu.au/research/proj/nr0F04.pdf.

²² Walker, J.D. 2007. Is technology-enhanced learning effective Recent research and the "No Significant Difference" Hypothesis. University of Minnesota, Office of Information Technology. Available at http://dmc.umn.edu/spotlight/tel-effectiveness.shtml.

RESOURCES

The Institute is the research division of MTC and is dedicated to promoting innovations, exemplary practices, and projecting trends. The focus of our work addresses practical issues facing those who work with youth within Job Corps and offenders in correctional environments.

The Institute has produced a number of high quality publications which have been disseminated across the US and are currently on the Web at www.mtctrains.com.

- Correctional Officers: Strategies to Improve Retention
- Privatization In Corrections
- Programs That Help Offenders Stay Out of Prison
- Improving Reentry Success: Programming in Prison
- Women Professionals In Corrections: A Growing Asset
- When Women Hold The Keys: Gender, Leadership and Correctional Policy
- Contracting For Success: Improving Performance in Corrections
- Contracting for Success: Improving Performance in Corrections
- Contracting Prison Operations: A Plan to Improve Performance
- Measuring Success: Improving the Effectiveness of Correctional Facilities
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