

Wabash County

Lewis, Thomas J., House, 105 S. Arnold St.,
Roann, 06000521

MASSACHUSETTS**Hampden County**

Brimfield Center Historic District, Main St.,
Brookfield, Wales, Sturbridge and Warren
Rds., Brimfield, 06000524

Middlesex County

Center School, 13 Bedford St., Burlington,
06000523

[FR Doc. E6-8690 Filed 6-5-06; 8:45 am]

BILLING CODE 4312-51-P

DEPARTMENT OF THE INTERIOR**National Park Service****National Register of Historic Places;
Notification of Pending Nominations
and Related Actions**

Nominations for the following properties being considered for listing or related actions in the National Register were received by the National Park Service before May 20, 2006. Pursuant to § 60.13 of 36 CFR part 60 written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded by United States Postal Service, to the National Register of Historic Places, National Park Service, 1849 C St. NW., 2280, Washington, DC 20240; by all other carriers, National Register of Historic Places, National Park Service, 1201 Eye St. NW., 8th floor, Washington DC 20005; or by fax, 202-371-6447. Written or faxed comments should be submitted by June 21, 2006.

John W. Roberts,

*Acting Chief, National Register/National
Historic Landmarks Program.*

MISSOURI**St. Louis Independent city**

Autocar Sales and Service Building, (Auto-
Related Resources of St. Louis, Missouri
MPS) 2745 Locust, St. Louis (Independent
City), 06000530

MONTANA**Lewis and Clark County**

Alice Creek Historic District, USDA Forest
Service, Helena National Forest, Lincoln,
06000531

NORTH DAKOTA**Bottineau County**

Main, North Dakota School of Forestry, Old,
Alexander St. (N of terminus with 2nd St.),
Bottineau, 06000532

Grand Forks County

Grand Forks Near Southside Historic District
(Boundary Increase), 1216 Belmont Rd.,
Grand Forks, 06000533

VERMONT**Washington County**

Kents Corner Historic District, Kent Hill Rd.,
Old West Church Rd., Robinson Cemetery
Rd., Fowler Rd. Bliss Pond Rd., Calais,
06000534

[FR Doc. E6-8701 Filed 6-5-06; 8:45 am]

BILLING CODE 4312-51-P

DEPARTMENT OF LABOR**Employment and Training
Administration****Notice of Availability of Funds and
Solicitation for Grant Applications for
High Growth Job Training Initiative
Grants for the Advanced
Manufacturing Industry**

Announcement type: Notice of
Solicitation for Grant Applications.

Funding Opportunity number: SGA/
DFA PY 05-07.

Catalog of Federal Assistance number:
17.261.

Key Dates: The closing date for receipt of applications under this announcement is July 25, 2006. Applications must be received at the address below no later than 5 p.m. (Eastern Time).

SUMMARY: The Employment and Training Administration (ETA), U.S. Department of Labor (DOL), announces the availability of approximately \$10 million in grant funds for new and innovative approaches to meeting the workforce challenges of the advanced manufacturing industry under the President's High Growth Job Training Initiative. ETA defines "advanced manufacturing" as the use of technology or other productivity-enhancing business processes in the manufacturing enterprise and/or value-added supply chain. These advanced manufacturing technologies and processes may be used in a variety of industry sectors.

The President's High Growth Job Training Initiative (HGJTI) is a strategic effort to prepare workers for new and increasing job opportunities in high-growth, high-demand, and economically vital industries and sectors of the American economy. Through the initiative, ETA identifies high-growth, high-demand industries, evaluates their skill needs, and funds local and national partnership-based demonstration projects that: (a) Address workforce challenges identified by employers; and

(b) prepare workers for good jobs with career pathways in these rapidly expanding or transforming industries. The products, models, and effective approaches that result from HGJTI investments will be broadly disseminated to employers, education and training providers, and the workforce system to build their capacity to respond to employers' workforce needs.

Grant funds awarded under this Solicitation for Grant Applications (SGA) should be used to develop and implement innovative and industry-driven training solutions that address the advanced manufacturing industry's critical workforce challenges. Each solution must take place in the context of a strategic partnership between the workforce investment system, business and industry representatives, and education and training providers such as community colleges. The projects selected for funding under this SGA are intended to complement and enhance existing ETA investments for the advanced manufacturing industry available on ETA's Web site at <http://www.doleta.gov/BRG/Indprof/Manufacturing.cfm>.

Applicants may be public, private for-profit, and private non-profit organizations. It is anticipated that individual awards will fall within the range of \$750,000 to \$1.5 million.

ADDRESSES: Mailed applications must be addressed to the U.S. Department of Labor, Employment and Training Administration, Division of Federal Assistance, Attention: Eric Luetkenhaus, Grant Officer, Reference SGA/DFA PY-05-07, 200 Constitution Avenue, NW., Room N4716, Washington, DC 20210. Applicants may apply online through Grants.gov (<http://www.grants.gov>) and further information about applying online can be found in Part IV(3) of this solicitation. Telefacsimile (FAX) applications will not be accepted. Applicants are advised that mail delivery in the Washington area may be delayed due to mail decontamination procedures. Hand delivered proposals will be received at the above address.

SUPPLEMENTARY INFORMATION: This solicitation consists of eight parts:

- Part I describes the funding opportunity, provides background information on ETA's demand-driven workforce investment strategies and the President's High Growth Job Training Initiative, and highlights the critical elements and special emphases for this solicitation.
- Part II describes the award amount and performance period of the award.
- Part III describes eligible applicants and other grant specifications.

- Part IV provides information on the application and submission process and various funding restrictions.
- Part V describes the criteria against which applications will be reviewed and explains the proposal review and selection process.
- Part VI provides award administration information.
- Part VII contains DOL agency contact information.
- Part VIII lists additional resources of interest to applicants.

I. Funding Opportunity Description

Section 1 of this part provides background information on the Employment and Training Administration's demand-driven workforce investment strategies. Section 2 describes ETA's implementation of the President's High Growth Job Training Initiative (HGJTI) and describes the specific challenges and potential solutions identified for the advanced manufacturing industry as part of the HGJTI process. Section 3 describes critical elements of HGJTI grants. Section 4 describes areas of emphasis particular to this SGA.

1. The Employment and Training Administration's Demand-Driven Workforce Investment Strategies

Each year, the federal government invests billions of dollars in a state and local workforce investment network to assist businesses in recruiting, training, and retaining a skilled workforce. This network is called the workforce investment system, and consists of state and local workforce investment boards, state workforce agencies, and One-Stop Career Centers and their cooperating partners. Although these federal investments have in the past supported a set of standard menu-driven services for employers and workers, the realities of today's rapidly changing global economy make it imperative that the workforce investment system support customized activities that are driven by local employer demand. This demand-driven approach to workforce development is necessary to prepare workers to take advantage of new and increasing job opportunities in high-growth, high-demand, and economically vital industries and sectors of the American economy.

In a demand-driven workforce investment system, state and local workforce investment boards should invest strategically in workforce development activities that are relevant to the skill requirements of local industry and prepare individuals to compete in a global economy through better access to post-secondary education and training. To maximize

the impact of workforce development activities, workforce investment boards partner with entities critical to the development of America's workforce: Employers and education and training providers.

Within the context of these strategic partnerships, communities should use a solutions-based approach to workforce development, in which the partnering entities work through the cycle of: (1) Collecting and analyzing information about local workforce needs and critical capacity constraints; (2) incorporating a business or demand-driven perspective into issue identification and solutions development; (3) ensuring that the right strategic partners are at the table; (4) working collaboratively to explore, frame, and implement solutions; and (5) assessing how the products and outcomes of the project can be effectively deployed and replicated. The goal of this process is to ensure that workforce system dollars help workers get skills training that aligns with local industry-identified needs.

2. Background on the President's High Growth Job Training Initiative

ETA first modeled the role of strategic partnerships in demand-driven workforce investment through the President's High Growth Job Training Initiative (HGJTI). This initiative is a strategic effort to prepare workers for new and increasing job opportunities in high-growth, high-demand, and economically vital industries and sectors of the American economy. Through the initiative, ETA identifies high-growth, high-demand industries, evaluates their skill needs, and funds local and national partnership-based demonstration projects that provide workforce solutions to ensure that individuals can gain the skills to get good jobs with career pathways in these rapidly expanding or transforming industries.

The foundation of this initiative is partnerships between the publicly funded workforce investment system, business and industry representatives, and the continuum of education. These partnerships engage each partner in its area of strength. Industry representatives and employers define workforce challenges facing the industry and identify the competencies and skills required for the industry's workforce. Education and training providers, such as community colleges, assist in developing competency models and curricula and train new and incumbent workers. The workforce investment system analyzes local labor market information, accesses human capital (youth, unemployed, underemployed,

and dislocated workers), provides funding to support training for qualified individuals, and connects trained workers to good jobs.

ETA is modeling the power of these partnerships at the national level through investments in demonstration projects in 14 high-growth, high-demand industries. Each of the 14 industries was selected because it meets one or more of the following criteria: (1) Is projected to add substantial numbers of new jobs to the economy; (2) has a significant impact on the economy overall; (3) impacts the growth of other industries; (4) is being transformed by technology and innovation requiring new skills sets for workers; or (5) is a new and emerging business that is projected to grow. The 14 industries are:

- Advanced Manufacturing
- Aerospace
- Automotive Services
- Biotechnology
- Construction
- Energy
- Financial Services
- Geospatial Technology
- Healthcare
- Homeland Security
- Hospitality
- Information Technology (IT) & IT Business-Related Services
- Retail
- Transportation

For each industry, ETA follows a three-step process to identify workforce challenges and solutions and to demonstrate solutions nationally. First, ETA conducts an environmental scan to understand the economic conditions and workforce challenges facing the industry. Second, ETA convenes a series of meetings to offer leaders in business and industry an opportunity to share their current and future workforce needs with the workforce system. Using the information gathered at these meetings, ETA convenes another round of meetings with industry and workforce investment system representatives to verify workforce challenges and devise solutions. The results of these meetings are published in a comprehensive industry report. These reports are made available to the public via ETA's Web site at <http://www.doleta.gov/BRG/JobTrainInitiative>, as the HGJTI process is completed for each industry.

Based on the numerous industry-specific solutions identified during the HGJTI process, ETA identified a core set of workforce challenges that are common to all 14 target industries. These elements include:

- Developing a pipeline of young workers with foundational academic skills in math, science, and language;
- Expanding post-secondary training alternatives including apprenticeships

and workforce development programs at community colleges;

- Expanding the capacity of educational institutions;
- Helping workers keep up with the rapid pace of changing skills requirements due to innovation and technology;
- Developing new and innovative learning methodologies;
- Developing strategies for growing and retaining a skilled workforce, including developing career ladders and lattices for new and incumbent workers and updating the skills of incumbent workers;
- Accessing new and/or untapped labor pools;
- Transitioning workers from declining industries;
- Providing improved career guidance information and tools to students and jobseekers;
- Ensuring that educational models reflect the structure of today's workplace;
- Building models to help address a lack of industry defined competencies; and
- Engaging small businesses.

The third and final step of the HGJTI process is a series of federal investments in unique, innovative, and industry-driven projects that demonstrate training initiatives and capacity building strategies to address the industry's unique workforce challenges and reflect one or more of the twelve elements outlined above. Together, these projects contribute to a demand-driven workforce system by making up a solution set tailored to each industry's specific needs. The products, models, and effective approaches that result from this solution set are broadly disseminated to employers, education and training providers, and the workforce system to build their capacity to respond to employers' workforce needs.

ETA has completed the three-step HGJTI process for the advanced manufacturing industry. Over the past two years, ETA has made investments in forty projects totaling over \$80 million that support the advanced manufacturing industry. The projects selected for funding under this SGA are intended to complement and enhance the existing solution sets for the advanced manufacturing industry.

To assist applicants in understanding this industry and to provide context for the industry specific emphases detailed in Section 4 of this part, a brief description of the advanced manufacturing industry and its workforce challenges is provided below. Additionally, applicants are encouraged

to familiarize themselves with the full industry reports and current investments.

The Advanced Manufacturing Industry and Its Workforce Challenges

The U.S. manufacturing industry accounts for 14 percent of the U.S. Gross Domestic Product and employs 14 million workers, 11 percent of total U.S. employment. However, today's manufacturing industry is undergoing a dramatic transformation, with profound implications for the new and incumbent manufacturing workforce. To increase productivity and remain globally competitive, U.S. manufacturers are incorporating process improvement strategies, adopting quality management systems, and overhauling their production facilities with advanced technology. In order to operate a modern production facility, manufacturers require workers with advanced skills.

Advanced manufacturing was included in the HGJTI because of its importance to the U.S. economy, the transformation in technology and skill requirements, and the difficulty that manufacturers report in hiring skilled workers. ETA defines "advanced manufacturing" as the use of technology or other productivity-enhancing business processes in the manufacturing enterprise and/or value-added supply chain. This definition is not synonymous with "high-tech manufacturing," as the emphasis is on the processes used in production and related activities, rather than the output of high-tech products. These advanced manufacturing technologies and processes can be used in a variety of industry sectors such as aerospace. In addition to actual production and assembly activities, this definition includes product design, process engineering, quality control, and software support, as well as product packaging, shipping (though not the actual transportation), inventory management, and maintenance of capital equipment. ETA believes that a primary goal of the HGJTI in advanced manufacturing, and of the broader public workforce system, should be to encourage and assist more manufacturers to adopt advanced manufacturing techniques, with workforce training as a critical ingredient for that transformation.

Over the course of a series of Executive Forums, ETA met with senior executives from more than 50 manufacturing firms, representing a broad cross-section of the manufacturing industry. The industry executives identified numerous critical

workforce development challenges, and applicants are encouraged to address one or more of these challenges and/or those included in the areas of emphasis described in Section 4 of this part of the SGA:

- *Training for Innovation:* Manufacturers need workers who are continually focused on innovating products and services, as well as production and business processes.
- *Pipeline Development:* Too few young people consider the possibility of manufacturing careers and are unaware of the necessary skills. Similarly, students do not always graduate from high school equipped with the necessary skills or educated about manufacturing career opportunities.
- *Limited English-Speaking Workforce:* The manufacturing workforce is increasingly foreign-born, meaning that English language skills are becoming a prominent challenge for the industry. Employers have experienced difficulty finding English language programs that suit their particular needs.
- *Foundational Skills:* Manufacturers experience difficulty finding and hiring workers with basic technical skills.
- *Small Business Challenges:* Many small- and medium-sized manufacturers report a variety of obstacles to organizing training programs for their workers, such as a lack of expertise, staff, or resources.
- *Matching Training Providers to Business Needs:* Manufacturers experience difficulty finding training providers that align with their particular needs, for example: Coordination of work and training schedules, transportation of workers, and finding programs that meet specific technology or process needs.
- *Incumbent Worker Training:* Manufacturers report a need for alternative methods by which current employees can improve their skills. Competency models and career ladders need to be clearer in order to provide career development opportunities for incumbent workers.
- *Training the Supply Chain:* Manufacturers increasingly need integrated training programs for workers throughout the supply chain. Initiating improvements and making investments in training and education may not benefit a company if the suppliers to that company are not achieving similar levels of improvement.
- *Industry Capacity/Lack of Skilled Workforce:* New manufacturing processes, such as nanotechnology, and new product demand, such as the specialized equipment needed for the construction of nuclear power plants in

the U.S., require domestic manufacturing capacity that may not exist today. A significant component of this challenge is the need for a skilled workforce.

In a series of Workforce Solutions Forums, attendees identified more than 300 potential solutions to these challenges. Examples of the identified solutions include, but are not limited to:

- Creating an information and education sharing model to distribute knowledge, technology, and training assets across an industry supply chain.
- Providing convenient and flexible training through distance learning opportunities and self-paced training, along with other delivery options.
- Creating and deploying industry-driven skills certifications that are sector specific, nationally recognized, and promote career ladders.

3. Critical Elements of High Growth Job Training Initiative Grants

HGJTI funded grants are expected to contain at least six critical elements. These elements consist of: (A) Innovative solutions to industry identified workforce challenges; (B) strategic partnerships; (C) leveraged resources; (D) sustainability; (E) replication of successful models for broad distribution, and (F) clear and specific outcomes. Each of these characteristics will be reflected in the ratings criteria in Part V and is described in further detail below.

A. Innovative Solution(s) to Industry Identified Workforce Challenges

As previously mentioned in Part I(1), the HGJTI employs a solutions-based approach to addressing the needs of the 21st Century workforce. Grants funded under this SGA should demonstrate how a demand-driven workforce system can more efficiently serve the workforce needs of business while at the same time helping workers find good jobs with good wages and promising career pathways. ETA also expects these grants to demonstrate innovation in effectively meeting the workforce needs of the advanced manufacturing industry. When considering the innovative aspects of workforce solutions proposed by applicants, ETA may look to the creativity of the content of the training or product being delivered, the form and style in which the training or product is delivered, the manner of managing and executing the development of the training or product, including the types of partners engaged or the roles partners play in the activities, and the adaptation of existing solutions to new contexts and industries. Innovative solution elements may be identified in part by

articulating how proposed workforce solution(s) relate to the growing body of knowledge from public, private, and governmental sources about effective demand-driven workforce development practices in a variety of sectors.

Applicants are not limited in the strategies and approaches they may employ to implement solutions provided the strategy is well developed, meets industry and local area workforce challenges, delivers training to workers, and is not duplicative of any existing efforts. Examples of previously funded advanced manufacturing industry solutions include:

- A program designed to increase the skills of workers in a large manufacturer's supply chain so those workers could incorporate new required composite materials technology to remain competitive in the aerospace industry.
- A program led by a state workforce investment board to provide technology transfers from state universities on modern plastics industry manufacturing technology, and to train workers to allow them to take advantage of this new technology.

B. Strategic Partnerships

ETA believes that strategic partnerships between the workforce investment system, business and industry entities, and education and training providers such as community colleges need to be in place in order to implement effective demand-driven training and capacity building strategies. Strategic partnerships between these three entities are a required component of proposals submitted under this SGA, as detailed in Part III(3)(a), and they may have a local, regional, or statewide focus.

In addition, partnerships that include a broader consortium of partners, such as Manufacturing Extension Partnership (MEP) centers, Advanced Technology Education (ATE) centers, and others, are also important to implementing effective demand-driven strategies. These strategic partnerships should focus broadly on the workforce challenges of the advanced manufacturing industry, which may include cross industry challenges, and should work collaboratively to identify and implement a wide range of solutions. Therefore, the HGJTI investment in training solutions would be one of many strategies that evolve from the partnership. While ETA welcomes applications from newly formed strategic partnerships, applicants are advised that grant funds may not be used for partnership development.

In order to maximize the long-term success of the proposed solution and to keep pace with the rapid changes in the economy and the nature of the skills and competencies necessary for work in these industries, these partnerships need to be substantial and sustained. ETA encourages partners to plan for the partnership's sustainability beyond the HGJTI investment period to enable ongoing assessment of industry workforce needs and collaborative development of solutions on a continual basis.

Within the context of the broader strategic partnership, and as it relates to the HGJTI, each collaborative partner should have clearly defined roles. The exact nature of these roles may vary depending on the issue areas being addressed and the scope and nature of the activities undertaken. However, ETA expects that each collaborative partner will, at minimum, significantly contribute to one or more aspects of the project. For example, employers must be actively engaged in the project and may contribute to many aspects of grant activities including defining the program strategy and goals, identifying needed skills and competencies, and, where appropriate, hiring qualified training graduates. Education and training providers from the continuum of education, which includes K-12, community and technical colleges, four year colleges and universities, and other training entities, should assist in developing industry-driven workforce education strategies in partnership with employers including competency models, curricula, and new learning methodologies.

The workforce investment system may play a number of roles, including identifying and assessing candidates for training, providing wrap-around support services and training funds for qualified individuals, where appropriate, and connecting qualified training graduates to employers that have existing job openings.

Partnerships with faith-based and community organizations are also encouraged. Grantees may elect to sub-award funds to faith-based and community organizations to perform a variety of grant services such as case management, mentoring, and English language programs, among others. Faith-based and community organizations can also provide wrap-around holistic and comprehensive support services where appropriate, such as employability training and career awareness activities.

C. Leveraged Resources

HGJTI investments leverage funds and resources from key entities in the

strategic partnership. Leveraging resources in the context of strategic partnerships accomplishes three goals: (1) It allows for the pursuit of resources driven by the strategy; (2) it increases stakeholder investment in the project at all levels including design and implementation phases; and (3) it broadens the impact of the project itself.

Leveraged resources include both federal and non-federal funds and may come from many sources. Businesses, faith-based and community organizations, economic development entities, education systems, and philanthropic foundations often invest resources to support workforce development. In addition, other federal, state, and local government programs may have resources available that can be integrated into the proposed project. Examples of such programs include other Department of Labor programs such as registered apprenticeship and Job Corps, as well as non-DOL One-Stop partner programs such as Vocational Rehabilitation and Adult Education. ETA encourages HGJTI grantees and their partners to be entrepreneurial as they seek out, utilize, and sustain these resources when creating effective solutions to the workforce challenges identified by the industry.

D. Sustainability

The HGJTI investment should be considered seed funding. Therefore, HGJTI grantees should develop strategies to sustain the project or related partnership activities after the federal investment ends. Financial resources are an important part of any sustainability strategy; however, they are not the only component. Sustainability is also strengthened by the partnerships formed before and during the grant term; systems, strategies, and processes put in place during the grant period; and the experience gained through implementing a HGJTI grant. All of these may provide the foundation for developing long-term systemic solutions to workforce challenges in high-growth, high-demand industries.

E. Replication of Successful Models for Broad Distribution

HGJTI grantees are expected to develop the learning and achievement that result from their projects into solution models that can be shared with and implemented by the workforce investment system, industry leaders, and education and training community. To support the replication and distribution of solution models, ETA has developed an integrated web space called www.workforce3one.org.

Workforce³ One offers the public workforce system, employers, economic development professionals, and education professionals an innovative knowledge network designed to create and support a demand-driven community, one that responds directly to business needs and prepares workers for good jobs in the fastest growing careers. By supporting replicable proposals that can be implemented in multiple areas and industries, ETA is able to maximize the investment by expanding the grant's impact beyond the initial grant site and helping additional workers in other areas and industries.

F. Clear and Specific Outcomes

HGJTI grants are results-oriented and demonstrate clear and specific outcomes that are appropriate to the nature of the solution and the size of the project and that indicate progress towards the workforce challenges identified by the partnership. Because HGJTI grants invest in customized strategies to address local workforce challenges and skill shortages, ETA recognizes that outcomes will vary from project to project based on the specific activities proposed. HGJTI grants should demonstrate the effectiveness of training activities by creating appropriate benchmarks and measuring against them on a regular basis.

Training outcomes must include those tracked by the Common Measures such as earnings increases, job placements, and job retention. Common Measures are the OMB-approved uniform evaluation metrics for job training and employment programs. A detailed description of ETA's policy on the Common Measures can be found on the Common Measures/Individual Program Performance Web page at <http://www.doleta.gov/Performance/quickview/IPPMasures.cfm>.

Grants that have capacity building components should track the impact of products, models, and activities. Outcomes and impacts of the proposed project should satisfactorily address the industry-identified workforce needs and capacity constraints identified by the partnership.

4. ETA Emphases for This SGA

In addition to the critical elements described above, ETA has developed three areas of emphasis for advanced manufacturing projects funded through this SGA: (A) Addressing advanced manufacturing industry identified workforce challenges; (B) integrating Workforce Investment Act funding into the project; and (C) integrating the

project into regional economic development activities.

A. Addressing Advanced Manufacturing Industry Identified Workforce Challenges

Based on the scope and nature of investments made in previous funding rounds, ETA has identified specific workforce challenges for emphasis in this SGA. These are a subset of the challenges described earlier in Section 2 of this Part, and although applicants are encouraged to develop proposals that address the specific challenges listed below, all unique and innovative proposals providing solutions to identified industry workforce challenges in advanced manufacturing will be considered and reviewed.

As applicants describe their solutions to the workforce challenges below or other industry challenges, they should describe how their project relates to the framework of competencies included in Attachment A. This framework has been developed by industry, and is designed to provide prospective workers, educators, the public workforce system, and businesses with a common understanding of the basic competencies necessary for a career in advanced manufacturing. A more detailed description of the framework, its purpose, and how to use it can be found in Attachment A.

Please note that ETA is particularly interested in projects that provide workers with the technical competencies necessary to succeed in an advanced manufacturing environment. Tiers 4 through 7 of the framework address these technical competencies. Although applicants may include efforts that promote personal effectiveness, workplace, academic, and management competencies as an element of their projects, these efforts should not be the primary focus of the project.

As applicants explain how the proposed models fit within the framework, a description of how the various tools and materials to be developed under the proposal, such as new curricula, certifications, or standards, should be included.

- *Enterprise and Supply Chain Transformation*: Applicants are encouraged to submit projects that promote the comprehensive transformation of a manufacturing enterprise, or of a manufacturing value-added supply chain that involves a number of separate companies producing a final good. Because the manufacturing industry is being transformed into a high tech industry using advanced manufacturing

processes, industries and workforce systems need the ability to constantly re-skill workers as innovation and technology change the nature of the work. An enterprise or supply chain transformation model would demonstrate how the project partners would provide a suite of workforce development offerings for multiple levels of an enterprise or supply chain, in order to promote agility of both production and business processes to respond to changing market conditions. Although the overall project may address the training needs of administrative and supervisory personnel, the primary focus of the grant funding should be directed toward workers associated with the manufacturing process.

- *Career Lattice Models:* Applicants are encouraged to submit projects that develop comprehensive career lattice models for advanced manufacturing. The key elements of such models are: Skills assessments, multiple entry-exit points, modularized curricula, multi-delivery options, and multi-level certifications. The model should allow for entry by various populations and under-utilized labor pools, including but not limited to youth, older workers, displaced workers, workers transitioning between industries, welfare recipients, ex-offenders, veterans, workers with limited English proficiency, incumbent workers, and/or persons with disabilities.

- *Innovative Learning Methodologies:* Applicants are strongly encouraged to develop and utilize learning methodologies in their projects that: Facilitate and accelerate knowledge transfer through innovative, interactive, and integrated technologies; are flexible without constraints regarding time and place; and are responsive to the different types of potential users of these technologies. As information technology rapidly becomes a defining element of today's dynamic work environment and an integral part of motivating and supporting effective learning, training models and methodologies that may have been adequate in the past may not be able to meet the demands of the workforce challenges of today. Meeting these challenges will require new and creative approaches to workforce development. Examples of such methods may include the use of gaming or virtual simulations, just in time learning, distance learning and blended learning solutions. Applicants are encouraged to demonstrate the impact of innovative learning methodologies on a variety of training outcomes such as wage gains and retention.

- *Increasing the Capacity for Training to Industry-Wide Technical Competencies:* Applicants are encouraged to submit projects that address the need for qualified instructors who can teach the full range of industry-wide technical competencies described in Tier 4 of the Advanced Manufacturing Competencies Framework, and included in Attachment A. Similarly, applicants are encouraged to develop curricula and/or other training materials for the industry-wide technical competencies that may be disseminated nationwide. Applicants should develop these materials for industry-wide technical competencies at both the entry level and the technician level.

B. Integrating Workforce Investment Act Funding

Applicants are encouraged to integrate Workforce Investment Act (WIA) funding at the state and local level into their proposed project. Integrating WIA funds ensures that the full spectrum of assets available from the workforce system is leveraged to support the HGJTI solution. The wide variety of WIA programs and activities provide both breadth and depth to the proposed solution offered to both businesses and individuals. In addition, the use of WIA funds helps integrate the grant's solutions-based activities into the local or regional workforce investment system, which serves to strengthen the system's ability to become more demand-driven and supports long-term sustainability.

The integration of WIA funds may take many forms. For example, HGJTI funds may be used for the development of curriculum materials and training for incumbent workers, while WIA resources are used to fund Individual Training Accounts (ITAs) that provide training for adults and dislocated workers. In addition, other WIA resources may be used to provide supportive services (such as transportation or child care) to training recipients. Applicants may wish to consider the appropriateness of a variety of WIA funds such as Job Corps (WIA Title 1, Subtitle C), Youth (WIA Section 129), Adults and Dislocated Workers (WIA Section 133), Native Americans (WIA Section 166), Migrant and Seasonal Farm Workers, (WIA Section 167), Demonstrations and Pilot Projects (WIA Section 171), and National Emergency Grants (WIA Section 173).

Please note that all federal requirements will continue to apply to WIA integrated funds used for the proposed solution. However, selected applicants will be encouraged to work

with states to identify available waivers of statutory and regulatory requirements as authorized under Section 189 of WIA.

C. Integrating the Project Into State and Regional Economic Development Activities

ETA recognizes that workforce development is a key factor in our nation's economic competitiveness. To stay ahead of global competition, we must identify strategies to further integrate workforce and economic development with education at the state and regional level—where companies, workers, researchers, entrepreneurs and governments come together to create competitive advantage. Therefore, ETA encourages applicants to integrate their proposed grant activities into state or regional economic development strategies. This integration can be achieved by (a) implementing strategies that build upon and align with current state and/or regional strategic plans currently in place under the Workforce Investment Act, the Department of Commerce's economic development programs, the Department of Housing and Urban Development's community development programs, and other applicable state and federal programs; and/or (b) strategically involving state and regional partners in grant activities. Applicants that fully demonstrate that their proposed grant activities are integrated into state or regional economic development strategies by providing clear and specific examples of those strategies will receive 5 bonus points.

II. Award Information

1. Award Amount

ETA intends to fund 10 to 12 projects ranging from \$750,000 to \$1.5 million; however, this does not preclude funding grants at either a lower or higher amount, or funding a smaller or larger number of projects, based on the type and the number of quality submissions. Applicants are encouraged to submit budgets for quality projects at whatever funding level is appropriate to the project. Nevertheless, applicants should recognize that the limited funds available through this SGA are intended to supplement project budgets rather than be the sole source of funds for the proposal.

2. Period of Performance

The period of grant performance will be up to 36 months from the date of execution of the grant documents. This performance period shall include all necessary implementation and start-up activities as well as participant follow-

up for performance outcomes and grant close-out activities. A timeline clearly detailing these required grant activities and their expected completion dates must be included in the grant application. If applied for and with significant justification, ETA may elect to exercise its option to award no-cost extensions to these grants for an additional period at its own discretion, based on the success of the program and other relevant factors.

III. Eligibility Information and Other Grant Specifications

1. Eligible Applicants

Applicants may be public, private for-profit, and private non-profit organizations including faith-based and community organizations. The application must clearly identify the applicant and describe its capacity to administer the HGJTI advanced manufacturing grant, in terms of both organizational capacity and data management capabilities. Applications for supplementation of existing projects are eligible for consideration under this SGA; however, applications for renewal of existing projects will not be considered. Please note that the applicant and fiscal agent must be the same organization.

2. Cost Sharing or Matching

Cost sharing, matching, or cost participation is not required for eligibility; however, applicants are encouraged to leverage the resources of the partnership, whenever possible.

3. Other Grant Specifications

A. Demonstrated Partnerships

To be considered for funding under this SGA, the applicant must demonstrate that the proposed project will be implemented by a strategic partnership that includes at least one entity from each of three categories: (1) The workforce investment system, which may include state and local workforce investment boards, state workforce agencies, and One-Stop Career Centers and their partners; (2) the education and training community, which includes the continuum of education from K-12 to community and technical colleges, four year colleges and universities, and other training entities; and (3) employers and industry-related organizations such as associations and labor-management organizations.

B. Training Workers for Employment in High-Growth Industries

All grants funded under this solicitation must include the direct

provision of training to individual participants. Applicants are not limited in the strategies and approaches they may employ to implement training activities; however, the training must: (a) Target skills and competencies demanded by the advanced manufacturing industry; (b) support participants' long term career growth along a defined career pathway such as an articulated career ladder and lattice; and (c) result in an industry-recognized certificate, degree, or license that indicates a level of mastery and competence in a given field or function. The credential awarded to participants should be based on the type of training provided through the grant and the requirements of the targeted occupation, and should be selected based on consultations with industry partners. For example:

- Customized and short-term training should result in a performance-based certification or certificate. This certification may be developed jointly by employers and the project partners, based on defined knowledge and skill requirements for specific high-growth occupations. Performance-based certifications may also be based on industry recognized curriculum and standards.
- Training in fields with established professional standards and examinations should result in certification.
- In states where licensure is required for the specific occupation targeted by the training, the credentialing requirement should be set accordingly.
- In some instances, training provided under the HGJTI grant may lead to a degree. In these instances, the credential will be the degree itself or the successful completion of coursework required for the degree.

In addition to the required training strategies, applicants may, but are not required to, propose capacity building strategies to meet the training needs of advanced manufacturing employers. These proposed capacity building efforts must be directly linked to the specific training supported under the grant, and are expected to address significant barriers that impede the ability of the partnership to meet the advanced manufacturing industry's demand for workforce training. These strategies should not simply address isolated deficits, but rather provide a comprehensive solution to identified capacity challenges as they relate to the advanced manufacturing industry.

Please note that, where training and capacity building activities relate specifically to competencies identified in the advanced manufacturing

competency model framework found in Attachment A, this relationship should be clearly articulated.

C. Participants Eligible To Receive HGJTI Training

Generally, the scope of potential trainees is very broad. Training may be targeted to a wide variety of populations, including unemployed individuals and incumbent workers. The identification of targeted and qualified trainees should be part of the larger project planning process by the required partnership and should relate to the workforce issue that is being addressed by the training.

D. Veterans Priority

This program is subject to the provisions of the "Jobs for Veterans Act," Public Law 107-288, which provides priority of service to veterans and spouses of certain veterans for the receipt of employment, training, and placement services in any job training program directly funded, in whole or in part, by the Department of Labor. Please note that to obtain priority of service, a veteran must meet the grantee's program eligibility requirements. ETA Training and Employment Guidance Letter (TEGL) No. 5-03 (September 16, 2003), available at http://wdr.doleta.gov/directives/corr_doc.cfm?DOCN=1512, provides general guidance on the scope of the veterans priority statute and its effect on current employment and training programs.

IV. Application, Submission, and Funding Restriction Information

1. Address To Request Application Package

This SGA contains all of the information and links to forms needed to apply for grant funding.

2. Content and Form of Application Submission

The proposal must consist of two (2) separate and distinct parts: Part I, the Cost Proposal and Part II, the Technical Proposal. Applications that fail to adhere to the instructions in this section will be considered non-responsive and may not be given further consideration. Please note that it is the applicant's responsibility to ensure that the funding amount requested is consistent across all parts and sub-parts of the application.

Part I of the proposal is the Cost Proposal and must include the following two items:

- The Standard Form (SF) 424, "Application for Federal Assistance" (available at <http://www.whitehouse.gov/omb/grants/>)

sf424.pdf). Upon confirmation of an award, the individual signing the SF 424 on behalf of the applicant shall represent the responsible financial and administrative entity. All applicants for federal grant and funding opportunities are required to have a Dun and Bradstreet (DUNS) number. For more information about the DUNS number, see OMB Notice of Final Policy Issuance, 68 FR 38402 (June 27, 2003). Applicants must supply their DUNS number on the SF 424. The DUNS number is a nine-digit identification number that uniquely identifies business entities. Obtaining a DUNS number is easy and there is no charge. To obtain a DUNS number, access this Web site: <http://www.dunandbradstreet.com> or call 1-866-705-5711.

- The Standard Form (SF) 424A Budget Information Form (available at <http://www.whitehouse.gov/omb/grants/sf424a.pdf>). In preparing the Budget Information Form, the applicant must provide a concise narrative explanation to support the request. The budget narrative should break down the budget and corresponding leveraged resources by deliverable, making clear distinctions between training and (if any) capacity building costs, and should discuss precisely how the administrative costs support the project goals. All applicants should indicate training costs-per-participant by dividing the total amount of the budget designated for training by the number of participants trained. This is provided for informational purposes only and will not be used in the evaluation of the grant application.

Please Note: If the proposal calls for integrating WIA or other federal funds or includes other leveraged resources, these funds should not be listed on the SF 424 or SF 424A Budget Information Form, but should be described in the budget narrative and in Part II of the proposal. The amount of federal funding requested for the entire period of performance should be shown together on the SF 424 and SF 424A Budget Information Form. Applicants are also encouraged, but not required, to submit the OMB Survey N. 1890-0014: Survey on Ensuring Equal Opportunity for Applicants, which can be found at <http://www.doleta.gov/sga/forms.cfm>.

Part II of the application is the Technical Proposal, which demonstrates the applicant's capabilities to plan and implement the President's High Growth Job Training Initiative grant project in accordance with the provisions of this solicitation, and includes a project description as described in the Criteria section of this solicitation. The project description is limited to twenty-five (25)

double-spaced, single-sided, 8.5 inch x 11 inch pages with 12 point text font and one-inch margins. Any pages over the 25 page limit will not be reviewed. In addition, the applicant may provide resumes, a staffing pattern, statistical information and related material in attachments, which may not exceed twenty (20) pages. Although not required, letters of support or commitment from partners providing financial resources may be submitted as attachments. Such letters will count against the allowable maximum page total. Please note that applicants should not send letters of commitment or support separately to ETA because letters are tracked through a separate system and will not be attached to the application for review. The applicant must clearly reference any partners in the text of the Technical Proposal. Except for the discussion of any leveraged resources to address the evaluation criteria, no cost data or reference to prices should be included in the Technical Proposal. The following information is required:

- A two-page abstract summarizing the proposed project and applicant profile information including:
 - Applicant name;
 - Industry focus (advanced manufacturing and any other related industries, such as aerospace);
 - A brief description of the workforce challenges addressed (100 words);
 - A brief description of the proposed solution (150 words);
 - Key partners funding amount requested;
 - Amount of leveraged resources; and
 - Number of people trained and other key grant outcomes
- A table of contents listing the application sections; and
- A timeline outlining project activities, including expected start-up, implementation, participant follow-up for performance outcomes, grant close-out and other activities.

Please note that the abstract, table of contents, and timeline are not included in the twenty-five page limit.

Applications may be submitted electronically on Grants.gov or in hardcopy via mail or hand delivery. These processes are described in further detail in Section IV(3). Applicants submitting proposals in hard-copy must submit an original signed application (including the SF 424) and one (1) "copy-ready" version free of bindings, staples or protruding tabs to ease in the reproduction of the proposal by DOL. Applicants submitting proposals in hard-copy are also requested, though not required, to provide an identical

electronic copy of the proposal on CD-ROM.

3. Submission Date, Times, and Addresses

The closing date for receipt of applications under this announcement is July 25, 2006. Applications must be received at the address below no later than 5 p.m. (Eastern Time). Applications sent by e-mail, telegram, or facsimile (FAX) will not be accepted.

Applications that do not meet the conditions set forth in this notice will not be honored. No exceptions to the mailing and delivery requirements set forth in this notice will be granted.

Mailed applications must be addressed to the U.S. Department of Labor, Employment and Training Administration, Division of Federal Assistance, Attention: Eric Luetkenhaus, Reference SGA/DFA, PY-05-07, 200 Constitution Avenue, NW., Room N4716, Washington, DC 20210. Applicants are advised that mail delivery in the Washington area may be delayed due to mail decontamination procedures. Hand-delivered proposals will be received at the above address. All overnight mail will be considered to be hand-delivered and must be received at the designated place by the specified closing date.

Applicants may apply online through Grants.gov (<http://www.grants.gov>). It is strongly recommended that applicants using Grants.gov immediately initiate and complete the "Get Started" registration steps at <http://www.grants.gov/GetStarted>. These steps may take multiple days to complete, and this time should be factored into plans for electronic application submission in order to avoid facing unexpected delays that could result in the rejection of an application as untimely. If submitting electronically through grants.gov, it would be appreciated if the application submitted is saved as .doc, .pdf, or .txt files.

Late Applications: Any application received after the exact date and time specified for receipt at the office designated in this notice will not be considered, unless it is received before awards are made, it was properly addressed, and it was (a) sent by U.S. Postal Service mail, postmarked not later than the fifth calendar day before the date specified for receipt of applications (e.g., an application required to be received by the 20th of the month must be post marked by the 15th of that month), or (b) sent by overnight delivery service or Grants.gov to the addressee not later than one working day prior to the date specified for receipt of applications. It is highly

recommended that online submissions be completed one working day prior to the date specified for receipt of applications to ensure that the applicant still has the option to submit by overnight delivery service in the event of any electronic submission problems. "Post marked" means a printed, stamped or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable, without further action, as having been supplied or affixed on the date of mailing by an employee of the U.S. Postal Service. Therefore, applicants should request the postal clerk to place a legible hand cancellation "bull's eye" postmark on both the receipt and the package. Failure to adhere to the above instructions will be a basis for a determination of nonresponsiveness.

4. Intergovernmental Review

This funding opportunity is not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

5. Funding Restrictions

Determinations of allowable costs will be made in accordance with the applicable federal cost principles, e.g., Non-Profit Organizations—OMB Circular A-122. Disallowed costs are those charges to a grant that the grantor agency or its representative determines not to be allowed in accordance with the applicable federal cost principles or other conditions contained in the grant.

A. Indirect Costs

As specified in OMB Circular A-122, indirect costs are those that have been incurred for common or joint objectives and cannot be readily identified with a particular final cost objective. In order to utilize grant funds for indirect costs incurred the applicant must obtain an Indirect Cost Rate Agreement with its Federal Cognizant Agency either before or shortly after grant award.

B. Administrative Costs

Under the President's High Growth Job Training Initiative, an entity that receives a grant to carry out a project or program may not use more than 10 percent of the amount of the grant to pay administrative costs associated with the program or project. Administrative costs could be both direct or indirect costs, and are defined at 20 CFR 667.220. Administrative costs do not need to be identified separately from program costs on the SF 424A Budget Information Form. They should be discussed in the budget narrative and tracked through the grantee's accounting system. Although there will be

administrative costs associated with the managing of the partnership as it relates to specific grant activity, the primary use of funding should be to support the actual capacity building and training activity(ies). To claim any administrative costs that are also indirect costs, the applicant must obtain an indirect cost rate agreement from its federal cognizant agency as specified in Section 5(A) of this part.

C. ETA Distribution Rights

Applicants should note that grantees must agree to provide USDOL/ETA a paid-up, non-exclusive and irrevocable license to reproduce, publish, or otherwise use for federal purposes all products developed or for which ownership was purchased under an award, including but not limited to curricula, training models, technical assistance products, and any related materials, and to authorize them to do so. Such uses include, but are not limited to, the right to modify and distribute such products worldwide by any means, electronically or otherwise.

D. Legal Rules Pertaining to Inherently Religious Activities by Organizations That Receive Federal Financial Assistance

The government is generally prohibited from providing direct financial assistance for inherently religious activities. See 29 CFR Part 2, Subpart D. These grants may not be used for religious instruction, worship, prayer, proselytizing or other inherently religious activities. Neutral, non-religious criteria that neither favor nor disfavor religion will be employed in the selection of grant recipients and must be employed by grantees in the selection of sub-recipients. The term "direct" support is used to describe funds or other support that are provided "directly" by a governmental entity or an intermediate organization with the same duties as a governmental entity, as opposed to funds that an organization receives "indirectly" as the result of the genuine and independent private choice of a beneficiary under the meaning of the Establishment Clause of the U.S. Constitution.

6. Other Submission Requirements

Withdrawal of Applications. Applications may be withdrawn by written notice or telegram (including mailgram) received at any time before an award is made. Applications may be withdrawn in person by the applicant or by an authorized representative thereof, if the representative's identity is made known and the representative signs a receipt for the proposal.

V. Application Review Information

1. Evaluation Criteria

This section identifies and describes the criteria that will be used to evaluate the President's High Growth Job Training Initiative grant proposals. These criteria and point values are:

Criterion	Points
A. Statement of Need	10
B. Innovative Solutions to Address Industry Identified Workforce Challenges	30
C. Outcomes and Impact	25
D. Linkages to Key Partners	15
E. Leveraged Resources	10
F. Program Management and Organization Capacity	10
*Bonus: Connections to Regional Economies	5
Total Possible Points	105

A. Statement of Need (10 Points)

Applicants must demonstrate a clear and specific need for the federal investment in the proposed activities by: (a) Describing the role of the advanced manufacturing industry or industry sub-sectors in the economy of the area in which the grant activity will take place; (b) describing the workforce challenges facing the industry and their impact on specific local economic and workforce conditions; and (c) describing the resource analysis and mapping that has been conducted to date that demonstrates that local resources are not sufficient to address the workforce challenges. If the applicant intends to include capacity building activities as part of the proposal, this section must also include a detailed discussion of the capacity challenges the community or region faces that limit its ability to provide sufficient quantity or quality of training to meet the identified workforce needs. In addition, applicants should provide evidence that the workforce challenges to be addressed by the grant were identified in the context of the strategic partnership.

Applicants may draw from a variety of resources for supporting data, including: traditional labor market information, such as projections; industry data; trade associations or direct information from the local industry; and information on the local economy and other transactional data, such as job vacancies, that are available locally.

Up to 10 points may be awarded under this criterion based on the demonstrated existence of workforce challenges and the extent of need for the federal investment in the solution. Important factors for evaluation include:

- Demonstrated knowledge of the advanced manufacturing industry in the local area, including the impact of the industry on the local or regional economy.

- Demonstrated existence of the identified workforce challenges and, if capacity building activities are proposed, demonstrated existence of a capacity constraint in addressing those challenges, in the area in which the grant activity will take place.

- Discussion of the how the industry workforce challenges affect the specific employer partners contained in the proposal.

- Description of economic analysis and resource mapping used to demonstrate need for the federal investment.

- Identification of the sources of data used in analyses.

- If appropriate, the nature of larger strategic economic development or workforce investment projects with which the proposed project is aligned.

B. Innovative Solutions To Address Industry Identified Workforce Challenges (30 Points)

The applicant must describe the proposed workforce development solution strategy in full, including all solution elements and implementation strategies, how the solutions address the workforce challenges described in the statement of need, and how the proposed solution complements or enhances existing ETA investments in advanced manufacturing, and other activities undertaken by the partnership. Points for this criterion will be awarded for the following factors:

- *Solution Description (15 points).*

Applicants may earn up to 15 points based on evidence that the applicant has developed an effective solutions-based approach and a plan of implementation that will address the following objectives:

- The proposed project will address one or more workforce challenges identified by the advanced manufacturing industry through the High Growth Job Training Initiative, as discussed in Sections I(2) and I(4)(A) of this SGA; the proposed industry-driven project activities were developed in the context of a solutions-based approach; and the project will contribute to a demand-driven workforce investment system (4 points).

- The proposed training activities target skills and competencies demanded by the advanced manufacturing industry, support participants' long term career growth along a defined career pathway such as an articulated career ladder and lattice,

and clearly fit within the framework for advanced manufacturing competencies described in Attachment A. When discussing skills and competencies under the framework for advanced manufacturing competencies in Attachment A, applicants should specifically describe the tiers or competencies they intend to address.

The proposed training activities should also lead to an appropriate credential. If the credential targeted by the training project is a certificate or performance-based certification, applicants should either (a) demonstrate employer engagement in the curriculum development process, or (b) indicate that the certification will translate into concrete job opportunities with an employer. If there are proposed capacity building activities, the applicant must demonstrate that these activities are broad based, and are clearly integrated with training activities. Proposals calling for developing curricula or certification or assessing skills should describe how those activities relate to the competency framework and indicate whether they will be building new tools and materials to address the competencies or will utilize existing ones. (8 points).

- The applicant describes a reasonable sustainability strategy beyond the federal investment (3 points).

- *Implementation Strategy (10 points).* Applicants can earn up to 10 points based on evidence that the applicant has a clear understanding of the tasks required to successfully meet the objectives of the grant. Factors considered in evaluating this evidence include: (1) The existence of a work plan that is responsive to the applicant's statement of need and includes specific goals, objectives, activities, implementation strategies, and a timeline; (2) the feasibility and reasonableness of the timeline for accomplishing all necessary implementation activities, including start-up, capacity building (if applicable) and training activities, participant follow-up for performance outcomes, and grant close-out activities; (3) whether budget line items are consistent with and tied to the work plan objectives; and (4) the extent to which the budget is justified with respect to the adequacy and reasonableness of resources requested.

- *Innovative Solution Design (5 points).* Applicants may earn up to 5 points for integrating into their solutions approaches and techniques that are distinctively innovative, creative, or adaptive, or by demonstrating a new approach to

workforce development. To receive full points for this element, applicants must clearly identify innovative aspects of the proposed solution and explain in what way they are innovative and how that innovation will improve the overall quality and effectiveness of the solution. Applicants may also identify innovative solution elements by articulating how proposed workforce solution(s) relate to the growing body of knowledge from public, private, and governmental sources about effective demand-driven workforce development practices.

- *Integrating the Project into State and Regional Economic Development Activities (5 bonus points).* Applicants that fully demonstrate that their proposed grant activities will be integrated into state or regional economic development strategies will receive 5 bonus points. Applications that do not fully demonstrate this integration will not receive bonus points. Full demonstration of this integration can be achieved by (a) describing how proposed activities will build upon and align with current state and/or regional strategic plans currently in place under the Workforce Investment Act, the Department of Commerce's economic development programs, the Department of Housing and Urban Development's community development programs, and other applicable state and federal programs; and/or (b) explaining how key state and regional economic development partners will be involved in grant activities by providing clear and specific examples of those strategies.

C. Outcomes and Impact (25 Points)

Applicants should demonstrate a results-oriented approach to managing and operating the HGJTI project by fully describing the proposed outcome measures relevant to measuring the success or impact of the project. Scoring on this criterion will be based on the following factors:

- *Description of Outcomes (10 points).* Applicants may earn up to 10 points for indicating that appropriate outcomes will be tracked as detailed below. Additionally, the description of outcomes must include: (1) Baseline numbers for tracking progress; (2) benchmark outcome goals; and (3) the methods proposed to collect and validate outcome data in a timely and accurate manner.

- *Training.* Applicants must track training outcome measures that are consistent with ETA's Common Measures, such as employment placement numbers and/or earnings gains and retention. Other outcome measures that should be tracked include

the number of individuals awarded credentials or degrees, and any other outcome measures specific to the proposed training project. Applications must also identify the type of credential that participants will earn as a result of the proposed training, and the employer-, industry-, vendor-, or state-defined standards associated with the credential.

- *Capacity Building*. Applicants that have capacity building components in their projects must clearly describe all products, models, curricula, etc. that will be developed or acquired with federal funds through the grant and indicate the number of participants or entities who will benefit in either the short and/or long term, from the proposed activities. Applicants must describe the data measures that will be used to measure how the proposed capacity building activities impact the ability of entities to train workers for skills in demand by the advanced manufacturing industry.

- *Appropriateness of Outcomes (10 points)*. Applicants may earn up to 10 points based on three factors: (1) The extent to which the expected project outcomes are clearly identified and measurable, realistic, and consistent with the objectives of the project; (2) the ability of the applicant to achieve the stated outcomes within the timeframe of the grant; (3) the appropriateness of the outcomes with respect to both the extent of the workforce challenge described in the statement of need and the requested level of funding.

- *Replication of Outcomes (5 points)*. Applicants may earn up to 5 points by demonstrating the existence of an effective plan to capture proposed activities into a model that can be shared with the workforce investment system and other partners.

D. Linkages to Key Partners (15 Points)

The application must demonstrate that the proposed project will be implemented by a partnership that includes at least one entity from each of three categories: (1) The workforce investment system, (2) education and training providers such as community colleges, and (3) employers and industry representatives. ETA encourages, and will be looking for, applications that go beyond the minimum level of partnership and demonstrate broader, substantive and sustainable partnerships, such as those with faith-based and community organizations. Points for this criterion will be awarded based on the following three factors:

- *Completeness of the Partnership (9 points)*. The applicant must identify the partners and explain the meaningful

role each partner will play in the project. Points for this factor will be awarded based on: (a) The comprehensiveness of the partnership and the degree to which each key partner plays a committed role, either financial or non-financial, in the proposed project; (b) the breadth and depth of each key partner's contribution, their knowledge and experience concerning the proposed grant activities, and their ability to impact the success of the project; and (c) evidence, which may include letters of commitment and support, that key partners have expressed a clear dedication to the project and understand their areas of responsibility. Please note that, in order to receive full points for this factor, applicants must demonstrate that each required partner will play a well-developed and committed role in the project.

- *Partnership Management (6 points)*. Points for this factor will be awarded based on evidence of a plan for interaction between partners at each stage of the project, from planning to execution, demonstrated ability of the lead agency to successfully manage partnerships, and the overall completeness of the partnership, including its ability to manage all aspects and stages of the project and to coordinate individual activities with the partnership as a whole.

E. Leveraged Resources (10 Points)

Applicants should clearly describe any funds and resources leveraged in support of grant activities and demonstrate how these funds will be used to contribute to the goals of the project. This applies to funds leveraged from businesses, faith-based and community organizations, economic development entities, education systems, philanthropic foundations, and/or Federal, State, and local government programs, including WIA, Trade Adjustment Assistance, and Wagner-Peyser.

Scoring on this factor will be based on the extent to which the applicant fully describes the amount, commitment, nature, and quality of leveraged resources. The amount of resources leveraged will not be factored into the score for this section. Rather, applications will be scored based on the degree to which the source and use of funds is clearly explained and the extent to which leveraged resources are integrated into the project in support of grant outcomes. Important elements of the explanation include:

- Which partners have contributed leveraged resources and the extent of each contribution.

- Evidence, such as letters of commitment, that key partners have expressed a clear commitment to provide the contribution.

- The nature of the leveraged resources including an itemized description of each cash or in-kind contribution and a description of how each contribution will support the proposed grant activities.

- The quality of the leveraged resources including the quality of each in-kind contribution and the extent to which each contribution will be used to further the goals of the project.

F. Program Management and Organization Capacity (10 Points)

To satisfy this criterion, applicants must describe their proposed project management structure including, where appropriate, the identification of a proposed project manager, discussion of the proposed staffing pattern, and the qualifications and experience of key staff members. Applicants should also show evidence of the use of data systems to track outcomes in a timely and accurate manner. The applicant should include a description of organizational capacity and the organization's track record in projects similar to that described in the proposal and/or related activities of the primary partners.

Scoring under this criterion will be based on the extent to which applicants provide evidence of the following:

- The time commitment of the proposed staff is sufficient to ensure proper direction, management, and timely completion of the project;
- The roles and contribution of staff, consultants, and collaborative organizations are clearly defined and linked to specific objects and tasks;
- The background, experience, and other qualifications of the staff are sufficient to carry out their designated roles; and

- The applicant organization has significant capacity to accomplish the goals and outcomes of the project, including the ability to collect and manage data in a way that allows consistent, accurate, and expedient reporting.

2. Review and Selection Process

Applications for the President's High Growth Job Training Initiative Grants under this solicitation will be accepted after the publication of this announcement until the closing date. A technical review panel will make careful evaluation of applications against the criteria. These criteria are based on the policy goals, priorities, and emphases set forth in this SGA. Up to

105 points may be awarded to an application, including the five point bonus for connections to regional economies, based on the required information described in Part V(1). The ranked scores will serve as the primary basis for selection of applications for funding, in conjunction with other factors such as alignment with emphases detailed in the SGA; urban, rural, and geographic balance; the availability of funds; and which proposals are most advantageous to the Government. The panel results are advisory in nature and not binding on the Grant Officer, and the Grant Officer may consider any information that comes to his/her attention. The Government may elect to award the grant(s) with or without discussions with the applicants. Should a grant be awarded without discussions, the award will be based on the applicant's signature on the SF 424, which constitutes a binding offer by the applicant (including electronic signature via E-Authentication on <http://www.grants.gov>).

VI. Award Administration Information

1. Award Notices

All applicants will be contacted regarding their selection status at the conclusion of the review and selection process and all award notifications will be posted on the ETA Homepage at <http://www.doleta.gov>. Applicants selected for award will be contacted directly before the grant's execution and non-selected applicants will be notified by mail.

Note: Selection of an organization as a grantee does not constitute approval of the grant application as submitted. Before the actual grant is awarded, DOL/ETA may enter into negotiations about such items as program components, staffing and funding levels, and administrative systems in place to support grant implementation. If the negotiations do not result in a mutually acceptable submission, the Grant Officer reserves the right to terminate the negotiation and decline to fund the application.

2. Administrative and National Policy Requirements

A. Administrative Program Requirements

All grantees, including faith-based organizations, will be subject to all applicable Federal laws (available at <http://thomas.loc.gov>) and regulations (available at <http://www.gpoaccess.gov/cfr>), as well as the applicable Office of Management and Budget (OMB) Circulars (available at <http://www.whitehouse.gov/omb/circulars>). The grant(s) awarded under this SGA

will be subject to the following administrative standards and provisions, if applicable:

a. All Grant Recipients—20 Code of Federal Regulations (CFR) Part 667.220. (Administrative Costs).

b. Non-Profit Organizations—Office of Management and Budget (OMB) Circulars A-122 (Cost Principles) and 29 CFR Part 95 (Administrative Requirements).

c. Educational Institutions—OMB Circulars A-21 (Cost Principles) and 29 CFR Part 95 (Administrative Requirements).

d. State and Local Governments—OMB Circulars A-87 (Cost Principles) and 29 CFR Part 97 (Administrative Requirements).

e. Profit Making Commercial Firms—Federal Acquisition Regulation (FAR)—48 CFR Part 31 (Cost Principles), and 29 CFR Part 95 (Administrative Requirements).

f. All entities must comply with 29 CFR Parts 37, 93 and 98, and, where applicable, 29 CFR Parts 96 and 99.

g. In accordance with Section 18 of the Lobbying Disclosure Act of 1995, Public Law 104-65 (2 U.S.C. 1611) non-profit entities incorporated under Internal Revenue Service Code Section 501(c)(4) that engage in lobbying activities are not eligible to receive federal funds and grants.

Note: Except as specifically provided in this SGA, DOL/ETA's acceptance of a proposal and an award of federal funds to sponsor any programs(s) does not provide a waiver of any grant requirements and/or procedures. For example, the OMB Circulars require that an entity's procurement procedures must ensure that all procurement transactions are conducted, as much as practical, to provide open and free competition. If a proposal identifies a specific entity to provide services, the DOL/ETA's award does not provide the justification or basis to sole source the procurement, *i.e.*, avoid competition, unless the activity is regarded as the primary work of an official partner to the application.

B. Special Program Requirements

Evaluation. DOL may require that the program or project participate in an evaluation of overall HGJTI grant performance. To measure the impact of grants funded under the HGJTI, ETA may arrange for or conduct an independent evaluation of the outcomes and benefits of the projects. Grantees must agree to make records on participants, employers, and funding available and to provide access to program operating personnel and to participants, as specified by the evaluator(s) under the direction of ETA, including after the expiration date of the grant.

3. Reporting

The grantee is required to provide the reports and documents listed below:

Quarterly Financial Reports. A Quarterly Financial Status Report (SF 269) is required until such time as all funds have been expended or the grant period has expired. Quarterly reports are due 30 days after the end of each calendar year quarter. Grantees must use ETA's Online Electronic Reporting System.

Quarterly Progress Reports. The grantee must submit a quarterly progress report to the designated Federal Project Officer within 30 days after the end of each quarter. Two copies are to be submitted providing a detailed account of activities undertaken during that quarter. DOL may require additional data elements to be collected and reported on either a regular basis or special request basis. Grantees must agree to meet all DOL reporting requirements.

Final Report. A draft final report must be submitted no later than 60 days prior to the expiration date of the grant. This report must summarize project activities, employment outcomes, and related results of the training project, and should thoroughly document the solution approach. After responding to DOL questions and comments on the draft report, three copies of the final report must be submitted no later than the grant expiration date. Grantees must agree to use a designated format specified by DOL for preparing the final report.

VII. Agency Contacts

For further information regarding this SGA, please contact Melissa Abdullah, Grants Management Specialist, Division of Federal Assistance, at (202) 693-3346 (This is not a toll-free number). Applicants should fax all technical questions to (202) 693-2705 and must specifically address the fax to the attention of Melissa Abdullah and should include SGA/DFA PY 05-07, a contact name, fax and phone number.

This announcement is being made available on the ETA Web site at <http://www.doleta.gov/sga/sga.cfm> and at <http://www.grants.gov>.

VIII. Other Information

Resources for the Applicant. The Department of Labor maintains a number of Web-based resources that may be of assistance to applicants. The Web page for the Employment and Training Administration's Business Relations Group (<http://www.doleta.gov/BRG>) is a valuable source of background on the President's High Growth Job

Training Initiative. America's Service Locator (<http://www.servicelocator.org>) provides a directory of our nation's One-Stop Career Centers. Applicants are encouraged to review "Understanding the Department of Labor Solicitation for Grant Applications and How to Write an Effective Proposal" (<http://www/dol.gov/cfbci/sgabrochure.htm>). For a basic understanding of the grants process and basic responsibilities of receiving federal grant support, please see "Guidance for Faith-Based and Community Organizations on Partnering with the Federal Government" (<http://www.fbc.gov>).

Signed at Washington, DC, this 22nd day of May 2006.

Eric D. Luetkenhaus,

Grant Officer, Employment and Training Administration.

Attachment A: Framework of Competencies for the Advanced Manufacturing Industry

Competency Models as a Business Solution

Over the course of the High Growth Job Training Initiative for advanced manufacturing, ETA learned about numerous efforts to document the skills and competencies needed for successful careers in the industry. Over the years, many organizations have created curricula, educational programs, and other training tools to help prepare America's future manufacturing workforce. Today's manufacturers recognize the need for a common framework of foundational skills and competencies in order to know they are hiring workers who are prepared to succeed in 21st Century advanced manufacturing. Moreover, prospective workers want to know what skills they need to take the first step toward a successful career in manufacturing; training providers need to know what standards their training should meet, and that those standards are directly relevant to industry requirements; and the public workforce system needs to know that the training programs they are supporting and referring customers to are producing workers that will find employment.

The Value of Industry Competency Models

In response, industry has developed a dynamic, industry-driven framework of foundational and technical competencies that are necessary for entry-level workers across all manufacturing sectors. Such a model framework allows for consistency across industries, customization within sectors, and easy updating to

accommodate changing technology and business practices. More specifically, this framework provides a common language and reference to facilitate communication as industry leaders, educators, economic developers and public workforce investment professionals undertake a variety of activities, including:

- Developing sector specific competencies that flow from the foundational competencies;
- Developing competency-based curricula and training models;
- Developing position descriptions and hiring criteria for industry;
- Developing assessment and testing instruments; and
- Providing guidance for government investments in workforce preparation strategies in the manufacturing industry.

This framework builds on existing national and state skills standards, technical curricula, and certifications in the field of advanced manufacturing. This product is intended to be the framework for a competency model and purposely does not include performance indicators or measurement criteria for each competency content area, which must be developed by industry. Similarly, the framework does not specify competencies for individual industry sectors or occupations, which also must be developed by industry with their educational partners. Rather, the framework does describe specific competencies regarding foundational personal effectiveness, academic, workplace, and industry-wide technical competencies, included as part of this attachment. It is intended that by reducing duplication of efforts, such as continually identifying and re-validating core foundational competencies, this framework will free up resources, time, and energy for innovative curriculum development that can keep up with the pace of changing technology and industry requirements.

For purposes of this SGA, applicants are encouraged to familiarize themselves with this framework. Proposals that call for developing curricula or certifications, providing training assessing skills, or related activities, should describe how those activities relate to this framework. It is not suggested or encouraged that proposals address all of the tiers and competencies identified in the framework, or that applicants should be restricted to address only those competencies identified in the framework. Rather, applicants are encouraged to:

- Describe which tiers or competencies they intend to address or not address;

- Describe how they will utilize existing standards, curricula, certifications, and assessment tools; and
- Describe whether they will build on existing tools or develop new ones.

As noted in the SGA, ETA is particularly interested in projects that provide workers with the technical competencies necessary to succeed in an advanced manufacturing environment, which encompass Tiers 4 through 7 of the framework. While applicants may include efforts that promote personal effectiveness, workplace, academic, and management competencies as an element of their projects, these efforts should not be the primary focus of the project.

Dissemination and Use of Industry Competency Models

Over the coming months, ETA intends to develop similar competency model frameworks for each of the industries that make up the President's High Growth Job Training Initiative. In addition, ETA is developing a Web-based clearinghouse for industry-driven competency models that will:

- Provide industry a means to publicize their emerging skill needs;
- Serve as a resource where businesses (both small and large), educators, and individuals can go to ascertain the emerging skill demands in the U.S. workplace, and related certifications;
- Offer a tool for businesses and human resource professionals to develop job requirements;
- Provide a strong framework for curriculum development in advanced manufacturing; and
- Serve as a resource for career exploration and guidance.

The Internet-based competency clearinghouse will display the competency framework and provide links to access a database of related resources: skill standards, competency-based curricula, certifications, career ladder models and other tools. The clearinghouse will be added to over time as new resources are developed and to reflect changing skill requirements.

Structure of the Competency Framework

For easy reference, the building blocks for competency models, or competency model content framework, are shown in Figure 1 in a graphic consisting of nine tiers.

Foundational Competencies

- Tier 1—Personal Effectiveness Competencies
- Tier 2—Academic Competencies
- Tier 3—Workplace Competencies

Industry Competencies

- Tier 4—Industry-Wide Technical Competencies
- Tier 5—Industry Sector Technical Competencies

Occupational Competencies

- Tier 6—Occupation-Specific Knowledge Areas
- Tier 7—Occupation-Specific Technical Competencies
- Tier 8—Occupation-Specific Requirements
- Tier 9—Management Competencies

Tiers 1 through 4 are divided into blocks. The blocks on these tiers represent competency areas, that is, the skills, knowledge, abilities and other factors that are essential to successful performance in the industry. For example, in the advanced manufacturing competency framework, Tier 4 represents industry-wide technical competencies cutting across all manufacturing sectors. Tiers 5 through 9 may also contain competency blocks, but these should be defined for each industry-sector or occupation. Whereas some manufacturing industry sectors and educational partners have already come together to define their technical and occupational competencies, many others have not.

The arrangement of the tiers in a pyramidal shape represents the increasing level of specificity and specialization of the content on the upper tiers of the graphic. As a user moves through the various tiers of the model, the competencies become specific to certain industries and/or occupations. The graphic in Figure 1 is not intended to represent a sequential model, or to imply that all content area on a lower tier must be achieved prior to tackling a competency on a tier that is at an upper level on the graphic.

Foundational Competencies

At the base of the model, tiers 1 through 3 represent those competencies which provide the foundation for success in school and in the world of work. Employers have identified a link between foundational skills and job performance, as well as the fact that foundational skills are a needed prerequisite for workers to learn new industry-specific skills. These foundational competencies are essential to a large number of occupations and industries.

Tier 1—Personal Effectiveness Competencies are shown as hovering below the pyramid because these competencies are essential for all life roles—those roles as a member of a family, of a community, and of the

larger society. They are not exclusive to the competencies needed for a successful career or role in the workplace. They are included here because these competencies also are valued by employers, and are often referred to as “soft skills.” Personal effectiveness competencies are generally learned in the home or community and reinforced and honed at school and in the workplace. They represent personal attributes that may present some challenges to teach or assess.

Tier 2—Academic Competencies are critical competencies primarily learned in a school setting. They include cognitive functions and thinking styles. In varying degrees or to varying levels the content areas academic competencies are likely to apply to all industries and occupations. For example, the level of mathematical competency required varies depending upon the work setting such as retail versus aerospace manufacturing.

Tier 3—Workplace Competencies represent motives and traits as well as interpersonal and self-management styles. They generally are applicable to a large number of occupations and industries.

Industry Competencies

The competencies shown on Tiers 4 and 5 are grouped and referred to as Industry Competencies. The cross-cutting industry-wide technical competencies make it possible to show career lattices within an industry wherein a worker can move easily across industry sub-sectors. As a result, this model supports the development of an agile workforce, rather than narrowly following a single occupational career ladder.

Tier 4—Industry-Wide Technical Competencies represent the knowledge and skills that are common across the sectors within a broader industry. These technical competencies build on, but are more specific than, a competency represented on a lower tier. For example, competency in the use of Manufacturing Resource Planning software builds on Basic Computer Skills. It represents a more complex or additional level of knowledge and skill. For this reason, it is essential that education and training program outcomes provide the foundation for the more advanced technical competencies.

Tier 4 is divided into two sections, entry-level and technician-level. The entry-level technical work functions and content areas describe the industry-wide competencies that a training program for entry-level or relatively new workers should address. The technician-level work functions and content areas

describe the industry-wide competencies that a training program for more experienced workers should address. ETA does not suggest that a worker must possess all of these competencies to be employed in manufacturing, but that these competencies should form the basis for a comprehensive training program for entry-level or technician-level workers.

Tier 5—Industry-Sector Technical Competencies represent a sub-set of industry technical competencies that are specific to an industry sector, e.g., plastics manufacturing, automotive manufacturing, or food products manufacturing.

Occupational Competencies

The competencies on Tiers 6, 7, and 8 are grouped and referred to as Occupational Competencies.

Occupational competency models are frequently developed to define performance in a workplace, to design competency-based curriculum, or to articulate the requirements for an occupational credential such as a license or certification.

Tier 6—Occupation-Specific Knowledge Areas define the knowledge that is frequently specific to an occupation or group of occupations. For example, the knowledge and application of the principles of chemistry or nuclear power is necessary for only a limited number of occupations in certain industry sectors. Knowledge is often a key component of transferability among occupations.

Tier 7—Occupation-Specific Technical Competencies are the technical skills required by an occupation. For example, knowledge of operating a Computer Numerically Controlled (CNC) machine may be necessary for certain metalworking occupations.

Tier 8—Occupation-Specific Requirements are not truly competencies, but the “other factors” essential for work in an occupation. Holding a valid commercial driver’s license would be an example of such a requirement.

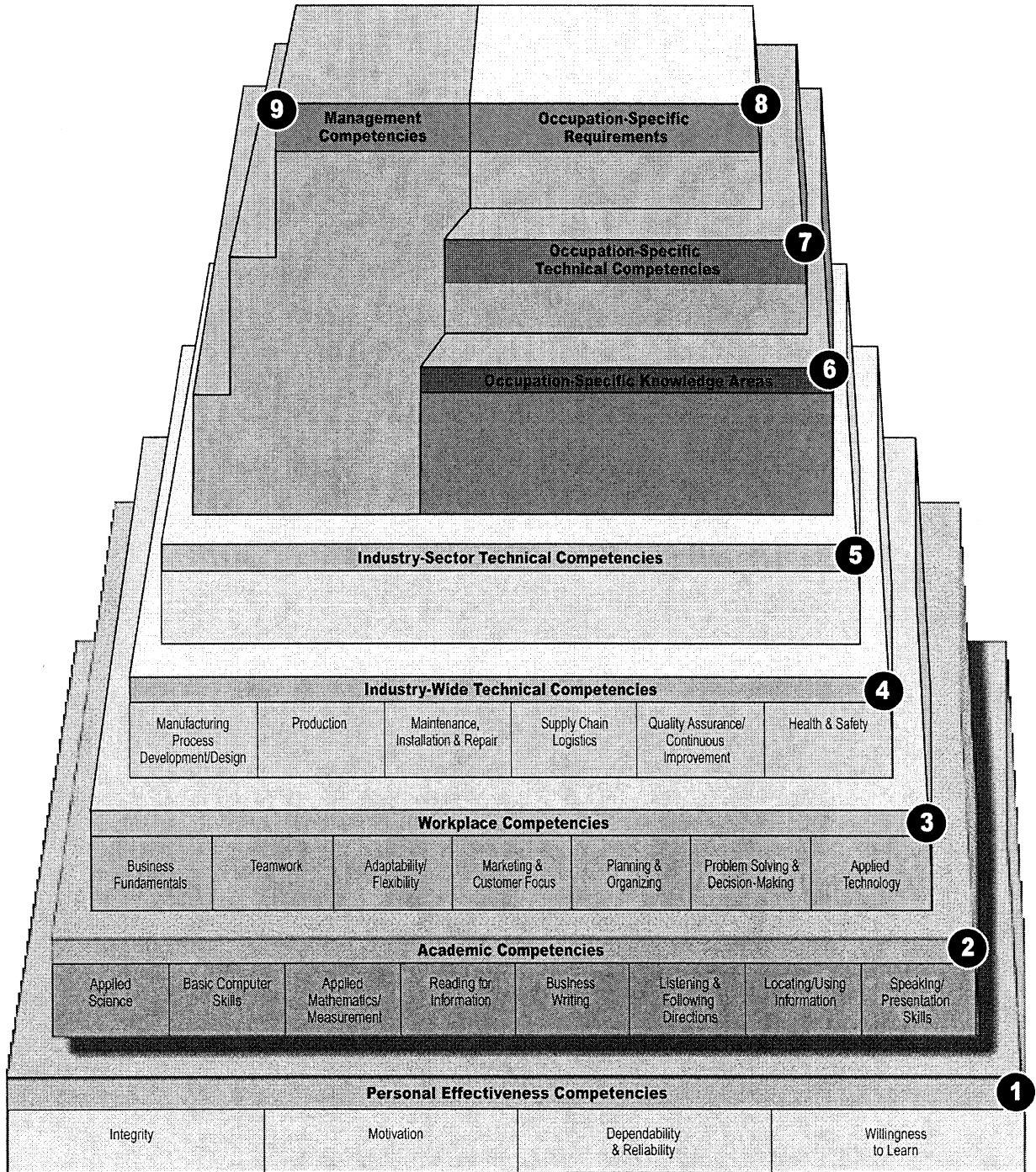
Tier 9—Management Competencies represent the leadership, supervision and management competencies that are needed in addition to the professional competencies for executives, managers, and supervisors in a specific industry or firm.

The placement of a content block on a specific tier of the model is not as important as the inclusion of the content. For example, behaviors that support business ethics could be included under Business Fundamentals, but could also be considered in the

Integrity block. The important consideration when developing a model is that the behaviors, knowledge and

skills that ensure success in the workplace are included.
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Figure 1: Graphical Representation of the Model for Competencies in the Advanced Manufacturing Industry



Detailed Information on Tiers 1-4 of the Framework of Competencies for the Advanced Manufacturing Industry

Tier 1: Personal Effectiveness

Personal Effectiveness Competencies			
Integrity	Motivation	Dependability & Reliability	Willingness to Learn

Personal Effectiveness
<p>1. <u>Integrity</u>: Displaying accepted social and work behaviors.</p> <ul style="list-style-type: none"> ▪ Use good manners ▪ Maintain confidentiality as appropriate about matters encountered in the workplace ▪ Treat supervisors and co-workers with respect ▪ Perform quality work ▪ Practice honesty with regard to company time and property
<p>2. <u>Motivation</u>: Demonstrating a willingness to work.</p> <ul style="list-style-type: none"> ▪ Take responsibility for completing one's own work assignment ▪ Show initiative in carrying out work assignments ▪ Take initiative in seeking opportunities to learn new skills and tasks
<p>3. <u>Dependability/Reliability</u>: Displaying responsible behaviors at work.</p> <ul style="list-style-type: none"> ▪ Avoid absenteeism ▪ Demonstrate promptness ▪ Maintain appropriate grooming and hygiene ▪ Do not attend to personal business on the job ▪ Manage stressful situations effectively
<p>4. <u>Willingness to Learn</u>: Understanding the importance of learning new information for both current and future problem-solving and decision-making.</p> <ul style="list-style-type: none"> ▪ Accept help from supervisors and co-workers ▪ Learn new/additional skills related to the job ▪ Learn about the products or services of the organization ▪ Contribute to solving problems on the job through suggestions, recommendations and communication

Tier 2: Foundation Academic Competencies

Academic Competencies							
Applied Science	Basic Computer Skills	Applied Mathematics/ Measurement	Reading for Information	Business Writing	Listening & Following Directions	Locating/Using Information	Speaking/Presentation Skills

2**Academic Competencies****1. Applied Science: Using scientific rules and methods to solve problems.****Scientific principles**

- Understand the scientific principles involved in industry-specific production processes
- Apply basic science principles to work-related problems & production processes
 - Physical
 - Chemical
 - Biological
 - Environmental

2. Basic Computer Skills: Using a personal computer and related applications to convey and retrieve information.**Navigation and file management**

- Use scroll bars, a mouse, and dialog boxes to work within the computer's operating system
- Access and switch between applications and files of interest

Internet and e-mail

- Navigate the Internet to find information
- Open and configure standard browsers
- Use searches, hypertext references, and transfer protocols
- Send and retrieve electronic mail (e-mail)

Word processing

- Use a computer application to type text, insert pictures
- Format, edit, print text
- Save, and retrieve word processing documents

Spreadsheets

- Use a computer application to enter, manipulate, and format text and numerical data
- Insert, delete, and manipulate cells, rows, and columns
- Create and save worksheets, charts, and graphs

Presentations

- Use a computer application to create, manipulate, edit, and show virtual slide presentations

Databases

- Use a computer application to manage large amounts of information
- Create and edit simple databases
- Input data
- Retrieve detailed records
- Creating reports to communicate the information

Graphics

- Work with pictures in graphics programs or other applications
- Creating simple graphics
- Manipulating the appearance
- Inserting graphics into other files/programs

3. Applied Mathematics/Measurement: Using mathematics to solve problems.**Computation**

- Add, subtract, multiply, and divide with whole numbers, fractions, decimals, and percents
- Calculate averages, ratios, proportions and rates; convert decimals to fractions
- Convert fractions to percents

Basic algebraic functions**Applied geometric principles**

- Analyze characteristics and properties of two- and three-dimensional geometric shapes
- Use geometric terms, such as spatial coordinates, with concrete objects and drawings
- Use visualization, spatial reasoning, and geometric modeling to solve problems

Measurement and estimation

- Take measurements of time, temperature, distances, length, width, height, perimeter, area, volume, weight, velocity, and speed
- Use and report measurements correctly
- Convert from one measurement to another (e.g., from English to metric)
- Estimate sizes, distances, and quantities; or determine time, costs, resources, or materials needed to perform a work activity

Application

- Perform basic math computations accurately
- Translate practical problems into useful mathematical expressions
- Use appropriate mathematical formulas and techniques

4. Reading for Information: Understanding written sentences and paragraphs in work related documents.**Reading**

- Read and understand work-related instructions and policies, memos, bulletins, notices, letters, policy manuals, and governmental regulations
- Read documents ranging from simple & straightforward to more complex & detailed
- Read and interpret technical manuals and equipment specifications

5. Business Writing: Using standard business English, defined as writing that is direct, courteous, grammatically correct, and not overly casual. The main requirement of workplace writing is clarity.**Organization and development**

- Create documents such as letters, directions, manuals, reports, graphs, and flow charts
- Communicate thoughts, ideas, information, messages and other written information, which may contain technical material, in a logical, organized, coherent, and persuasive manner
- Ideas are well developed with supporting information and examples

Mechanics

- Use standard syntax and sentence structure
- Use correct spelling, punctuation, and capitalization; uses appropriate grammar (e.g., correct tense, subject-verb agreement, no missing words)
- Tone – Write in a manner appropriate for business; uses language appropriate for the target audience; uses appropriate tone and word choice (e.g., writing is professional and courteous)

6. Listening to and Following Directions: Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.**Listening**

- Receive, attend to, interpret, understand, and respond to verbal messages and other cues
- Pick out important information in verbal messages
- Understand complex instructions
- Appreciate feelings and concern of verbal messages

Following directions

- Act upon the instruction to complete an assignment

7. Locating and Using Information: Knowing how to find information and identifying essential information (information gathering).

Organize relevant information

- Review information obtained for relevance and completeness
- Recognizes important gaps in existing information
- Take steps to eliminate those gaps
- Organize/reorganize information as appropriate to get a better understanding of the problem

8. Speaking/Presentation: Speaking so others can understand. Communicate in spoken English well enough to make oneself understood by supervisors and co-workers.**Speaking**

- Speak clearly
- Use correct grammar
- Effectively use eye-contact and non-verbal expression
- Present ideas in a persuasive manner

Presentation

- Express information to individuals or groups taking into account the audience and the nature of the information
- Track audience responses and react appropriately

Tier 3: Workplace Competencies

Workplace Competencies						
Business Fundamentals	Teamwork	Adaptability/ Flexibility	Marketing & Customer Focus	Planning & Organizing	Problem Solving & Decision-Making	Applied Technology

3

Workplace Competencies

1. **Business Fundamentals:** Determining how an economy functions as a whole. Money is allocated and spent to get the work done, and accounting for these expenditures.

Economic/Business/Financial principles

- Economic Terminology
- Supply/Demand
- Characteristics of markets
- Cost and pricing of products
- Profit and loss
- Fundamentals of accounting

Economic system as a framework for decision-making

- Understand how one's performance can impact the success of the organization
- Consider the relative costs and benefits of potential actions to choose the most appropriate one

Business ethics - Act in the best interests of the company, your co-workers, your community, and the environment

- Legal/Financial
 - Compliance with the spirit of applicable laws as well as the letter
 - Proper use of company property, minimizing loss and waste; report loss, waste or theft of company property to appropriate personnel
 - Maintain privacy and confidentiality of company information, as well as that of customers and co-workers
- Environmental/Health/Safety
 - Maintain a healthful and safe environment and report any violations/discrepancies
 - Ensure proper handling and disposal of toxic or hazardous materials
- Social
 - Treat co-workers fairly and with respect
 - Emphasize quality, customer satisfaction and fair pricing
 - Deal with customers in good faith, no bribes, kickbacks, or excessive hospitality

Marketing

- Demonstrate an understanding of market trends, company's position in the market place, defined market segments
- Understand position of product/service in relation to market demand
- Uphold the company and product brand through building and maintaining customer relations
- Integrate internal and external customer demands and needs into manufacturing product and process development

2. Teamwork: Developed capacities used to work with people to achieve goals. Includes social perceptiveness, coordination, persuasion, negotiation, instructing, and service orientation.

Work with others

- Work as part of a team to achieve mutual goals
- Develop and maintain good working relationships with supervisors and co-workers
- Choose behaviors and/or actions that best support the team and lead toward the accomplishment of work tasks
- Recognize a team's goals and identify ways to accomplish those goals in increasingly complex workplace situations

Influence/Negotiate

- Work through conflict constructively
- Persuasively present thoughts and ideas
- Respect the views of others
- Build toward consensus
- Influence, motivate, and persuade others in order to achieve company and client objectives

3. Adaptability/Flexibility: Being open to change (positive or negative) and to considerable variety in the workplace.

Entertain new ideas

- Is open to considering new ways of doing things
- Actively seek out and carefully considers the merits of new approaches to work
- Willingly embrace new approaches when appropriate and discards approaches that are no longer working

Deal with ambiguity

- Take effective action when necessary without having to have all the necessary facts in hand
- Change gears in response to unpredictable or unexpected events
- Effectively change plans, goals, actions or priorities to deal with changing situations

Work with people from diverse backgrounds

- Is flexible and open-minded when dealing with a wide range of people
- Listen to and consider others' viewpoints
- Alter opinion when it is appropriate to do so
- Work well and develop effective relationships with highly diverse personalities

4. Marketing and Customer Focus: Actively looking for ways to identify market demands and

meet the customer or client need.**Understand customer needs**

- Identify internal and external customers
- Demonstrate a desire to understand customer needs
- Ask questions as appropriate
- Demonstrate awareness of client goals

Provide personalized service

- Provide prompt and efficient responses to meet the requirements, requests, and concerns of customers
- Provide thorough, accurate information to answer customers' questions and to meet commitment times or performance guarantees
- Actively look for ways to help customers by identifying and proposing appropriate solutions and/or services
- Establish boundaries as appropriate for unreasonable customer demands

Act professionally

- Is pleasant, courteous and professional when dealing with internal or external customers
- Develop constructive and cooperative working relationships with customers
- Display a good-natured, cooperative attitude; is calm and empathetic when dealing with hostile customers
- Uphold the company and product brand in interactions with others

Keep customers informed

- Follow-up with customers during projects and following project completion
- Keep clients up to date about decisions that affect them
- Seek the comments, criticisms and involvement of customers
- Adjust services based on customer feedback
- Address customer comments, questions, concerns and objections with direct accurate and timely responses

5. Planning/Organizing: Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. For instance, finding ways to structure or classify multiple pieces of information.**Plan**

- Approach work in a methodical manner
- Plan and schedule tasks so that work is completed on time
- Keep track of details to ensure work is performed accurately and completely

Prioritize

- Prioritize various competing tasks
- Perform tasks quickly and efficiently according to their urgency
- Find new ways of organizing work area or planning work to accomplish work more efficiently

Allocate resources

- Estimate resources needed for project completion
- Allocate time and resources effectively
- Coordinate efforts with all affected parties
- Keep all parties informed of progress and all relevant changes to project timelines

Anticipate obstacles

- Anticipate obstacles to project completion
- Develop contingency plans to address them
- Take necessary corrective action when projects go off-track

6. Problem Solving/Decision-making: Considering the relative costs and benefits of potential actions to choose the most appropriate one.**Identify the problem**

- Recognize the existence of a problem
- Define the problem
- Identify potential causes of the problem by analyzing its component parts
- Use all available reference systems to locate and obtain information relevant to the problem
- Recall previously learned information that is relevant to the problem

Communicate the problem to appropriate personnel**Use team-building skills to analyze the problem**

- Identify potential causes of the problem by analyzing its component parts
- Use all available reference systems to locate and obtain information relevant to the problem
- Recall previously learned information that is relevant to the problem

Use team-building skills to generate possible solutions

- Generate a number of different approaches to problems
- Evaluate the relative merits of the various solutions

Choose a solution

- Decisively choose the best solution after contemplating available approaches to the problem
- Make difficult decisions even in highly ambiguous or ill-defined situations
- Quickly choose an effective solution without assistance when appropriate

Implement the solution

- Commit to a solution in a timely manner
- Develop a realistic approach for implementing the chosen solution
- Observe and evaluate the outcomes of implementing the solution to assess the need for alternative approaches and to identify lessons learned
- Solve problems of a technological nature using logic & reasoning

7. Applied Technology: Developed capacities used to design, set-up, operate, and correct malfunctions involving application of machines or technological systems.**Use technology**

- Use appropriate computer-based technology (see basic computer skills)
- Use a telephone, pager, radio, or other device to convey and receive information
- Use appropriate methods and instructions to insure equipment is used safely and without damage to the equipment

Equipment selection and troubleshooting

- Determine and select the appropriate tools and equipment needed to do a job
- Determine when and what kind of maintenance is needed
- Determine sources of operating error of equipment and appropriate responses

Tier 4—Industry-Wide Technical Competencies - Entry-Level

Industry-Wide Technical Competencies					
Manufacturing Process Development/Design	Production	Maintenance, Installation & Repair	Supply Chain Logistics	Quality Assurance/ Continuous Improvement	Health & Safety

4

1. MANUFACTURING PROCESS DESIGN/DEVELOPMENT: Research, design, implement, and continuously improve the manufacturing process to ensure product meets customer needs.

Entry-Level Critical Work Functions:

- Support manufacturing process design and development
- Communicate about and respond to requirements of internal and external customers

Entry-Level Technical Content Areas:

Fundamentals of research & development

- Awareness of basic Product R&D
- Awareness of basic Process R&D

Technical drawings and schematics

- Print reading
- Interpretation of drawings
- Interpretation of schematics
- Geometric dimensions and tolerances

CAD drawing fundamentals

- Creation of computer aided design (CAD) drawings
- Interpretation of CAD drawings
- Updating and editing CAD drawings
- CAD/CAM/CAE applications

Troubleshooting processes

- Knowledge of statistical process control
- Problem solving skills

Process assessment

- Procedure analysis and verification
- Documentation fault finding skills

2. PRODUCTION: Set up, operate, monitor, control and improve manufacturing processes and schedules to meet customer requirements.

Entry-Level Critical Work Functions:

- Manage raw materials/consumables
- Operate and control production/lab equipment
- Perform manufacturing process applications and operations

Entry-Level Technical Content Areas:

Production basics

- Types of production
- Lean manufacturing/continuous improvement

Production materials

- Sources
- Types of materials

Precision measurement

Manual tool & equipment operations

Basic automated systems & control operations

- Automated equipment
- Automated systems
- Computer control
- Robotics
- Process control
- Analytical testing

Basic manufacturing process applications & operations

- Assembly processes
- Fabrication processes
- Electrical/Electronics manufacturing processes
- Continuous flow/line balancing processes
- Finishing processes
- Clean room processes
- Experiment design/implementation processes
- Implementation of approved protocols

3. MAINTENANCE, INSTALLATION AND REPAIR: Maintain and optimize manufacturing equipment and systems.

Entry-Level Critical Work Functions:

- Identify, diagnose and/or repair equipment problems
- Communicate with others to ensure maintenance and repairs meet operational needs
- Maintain hands-on knowledge of equipment operations
- Maintain equipment, tools and workstations

Entry-Level Technical Content Areas:

General skills

- Use of hand tools
- Schematic drawings and control documents
- Calibrated measuring instruments
- Knowledge of basic AC/DC electrical systems
- Installation of parts for industrial equipment

Basic Disassembly/assembly skills

Basic maintenance and troubleshooting skills

- Mechanical systems
- Electrical systems
- Electronic systems
- Hydraulic/Pneumatic systems
- High vacuum systems
- Laser systems
- Computer systems

4. HEALTH AND SAFETY: Maintain a safe, healthy work environment.

Entry-Level Critical Work Functions:

- Follow established personal safety practices
- Ensure that equipment is being used safely
- Comply with local, federal and company health, safety and environmental regulations
- Identify unsafe conditions and take corrective actions

Entry-Level Technical Content Areas:

Personal safety

- Use of personal protective equipment and clothing
- Safety procedures for clean and safe working environment
- Following established safety practices

Safety procedures

- First aid or first response procedures
- Use of safety equipment
- Safe, prescribed operation of equipment and tools
- Use, maintenance and inspection of machine safeguards
- Inspecting material, equipment and fixtures for defects
- Safe moving of materials
- Safe evacuation of facility
- Response to shop emergencies
- Material safety data sheets (MSDS)
- Confined spaces
- Lock/Tag out practices

Regulatory compliance

- Role of OSHA/EPA in the workplace
- Regulations governing safe use of equipment
- Hazardous material information system labeling and storage (HMIS)
- Hazardous material handling and disposal (HAZMAT)
- Hazardous material communication (HAZCOM)

5. SUPPLY CHAIN LOGISTICS: Plan and monitor the movement and storage of materials and products in coordination with suppliers, internal systems and customers.

Entry-Level Critical Work Functions:

- Ship and receive products and materials

Entry-Level Technical Content Areas:**Basics of supply-chain management**

- Elements of the supply chain
- Just-in-time/lean manufacturing

Managing inventory

- Inventory forecasting
- Ordering materials and supplies

- Inventory monitoring and audits
- Stock rotation requirements
- Expediting

Work flow

- Material handling
- Plant facility and capacity
- Production scheduling

Production systems

- Lead and cycle time
- Change orders, bills of material, work orders, etc.

Packaging and distributing product

- Packaging product
- Labeling product- inventory tags and bar codes
- Warehouse management systems
- Transportation methods
- Customs and export control (basic paperwork)

6. QUALITY ASSURANCE AND CONTINUOUS IMPROVEMENT: Ensure product and process meets quality system requirements as defined by customer specifications.

Entry-Level Critical Work Functions:

- **Ensure materials, processes and final product meet quality specifications**
- **Support and maintain quality systems**

Entry-Level Technical Content Areas:**Quality assurance**

- Meeting customer needs
- Lean manufacturing
- Quality management systems and tools
- Industry standards

Improving quality

- Introduction to statistical process control
- Sampling and charting
- Problem solving tools

Inspecting for quality

- Inspecting raw/incoming materials

- Inspecting in-process product
- Inspecting final products

Continuous improvement

- Business process reengineering
- Systems analysis
- Data analysis
- Performance improvement strategies

Tier 4—Industry-wide Technical Competencies - Technician Level

Industry-Wide Technical Competencies					
Manufacturing Process Development/Design	Production	Maintenance, Installation & Repair	Supply Chain Logistics	Quality Assurance/Continuous Improvement	Health & Safety

4

1. MANUFACTURING PROCESS DESIGN/DEVELOPMENT: Research, design, implement, and continuously improve the manufacturing process to ensure product meets customer needs.

Technician-Level Critical Work Functions:

- Interpret and clarify customer expectations and product specifications
- Design manufacturing production and production support systems

Technician-Level Technical Content Areas:

Research & development

- Product R&D
- Process R&D
- Market/Sales/Life cycle analysis
- Intellectual property protection

Product realization

- Design for manufacturing and design for logistics
- Production system design and development
- Equipment/tool design and development
- Support systems design and development
- Development of prototype processes and products
- Production system design, testing and costing

Technology applications

- Integrated graphics technologies
- Machining and forming technologies
- Nano- and micro-nano technology
- Alternative energies technologies

Troubleshooting Processes

- Advanced fault finding skills on actual equipment
- Setup of SPC
- Data analysis and verification
- Data interpretation and corrective action implementation

2. PRODUCTION: Set up, operate, monitor, control and improve manufacturing processes and schedules to meet customer requirements.

Technician-Level Critical Work Functions:

- Develop manufacturing process plans and documentation
- Monitor manufacturing processes and systems
- Manage continuous improvement process

Technician-Level Technical Content Areas:**Production planning and work flow****Production components**

- Continuous improvement
- Time, materials and costs
- Production systems

Advanced production/process operations

- Assembly processes
- Fabrication processes
- Electrical/Electronics manufacturing processes
- Process overview knowledge
- Finishing processes
- Continuous flow/line balancing processes
- Cell culture/fermentation/media processes
- Recovery/Filtration processes

Production/process monitoring

- Controlling process flow

- Documentation and reporting
- Performance of analytical tests
- Calibration and troubleshooting
- Environmental parameters
- Write/Execute protocols

Manufacturing management

- Organizational design and management
- Project management
- Personnel management methods
- Human behavior/motivation/leadership
- Material and resource management
- Training skills

3. MAINTENANCE, INSTALLATION AND REPAIR: Maintain and optimize manufacturing equipment and systems.**Technician-Level Critical Work Functions:**

- Support the installation, customization or upgrading of equipment
- Coordinate preventive maintenance to ensure production process runs smoothly

Technician-Level Technical Content Areas:**Advanced installation and repair skills**

- Mechanical power transmissions systems
- Piping operations

Advanced maintenance and troubleshooting skills

- Process controls
- Pump systems
- Thermal systems (HVAC)
- Refrigeration systems
- Mechanical/Fluid power systems
- Separation/heat exchange systems
- Water treatment/destruction systems
- High voltage/utility systems
- Programmable logic controlled industrial equipment

Reliability and maintainability

- Basic reliability models
- Reliability of systems
- Design for reliability
- Design for maintainability
- Investigative techniques
- Analysis of failure data

4. HEALTH AND SAFETY: Maintain a safe, healthy work environment.

Technician-Level Critical Work Functions:

- **Conduct health, safety and/or environmental incident and hazard investigations**
- **Conduct preventive health, safety and/or environmental incident and hazard inspections**
- **Implement continuous improvement in health, safety and/or environmental practices**

Technician-Level Technical Content Areas:

Incident and hazard investigations

- Investigation of health, safety, or environmental incidences/hazards
- Documentation of findings
- Developing corrective actions
- Follow-up investigation
- Violations reports to proper authorities
- Workers compensation

Additional knowledge

- Insurance (property)
- Life safety code/National Fire Protection Association 101
- Engineering principles for safety

Environmental protection/waste management

- Chemical hazard assessment

Preventive health, safety or environmental inspections

- Audit of records and documentation
- Conducting inspections
- Clean room protocol
- Documentation of inspection findings
- Emergency response preparedness
- Fire protection and control

Continuous improvement in health and safety

- Root cause analysis
- Analysis of health/safety/environmental data
- Identification of projects and priorities

5. SUPPLY CHAIN LOGISTICS: Plan and monitor the movement and storage of materials and products in coordination with suppliers, internal systems and customers.

Technician-Level Critical Work Functions:

- **Manage purchasing and just-in-time materials flow, shipping and receiving, packaging and transportation**
- **Control inventory of materials and products**
- **Develop and maintain production/delivery schedules and supplier networks**

Technician-Level Technical Content Areas:**Supply-chain management**

- Manufacturing resources planning
- Collaborative, planning, forecasting and replenishment
- Vendor managed inventory systems
- Centralized versus decentralized control
- E-business and direct shipment

Automated material handling

- Automated material handling and distribution systems
- Integrated supply chain information technology

Resources planning

- Demand management
- Sales and operations planning
- Master scheduling
- Measuring business performance

Detailed scheduling and planning

- Techniques of inventory management
- Detailed material planning

Executing operations

- Procurement and external source of supply
- Prioritizing and sequencing work

- Executing plans and implementing controls
- Evaluating performance
- Ergonomics
- Sharing and collaboration across the supply chain

Awareness of global impacts

- Intellectual property
- Taxes and duties
- Shipping, receiving, and freight
- Customs and export control (legal aspects)

6. QUALITY ASSURANCE AND CONTINUOUS IMPROVEMENT: Ensure product and process meets quality system requirements as defined by customer specifications.

Technician-Level Critical Work Functions:

- Monitor production for product and process quality
- Employ audits and inspections to maintain the quality and continuous improvement process
- Correct the product and process to meet quality standards
- Suggest and/or implement continuous improvement actions

Technician-Level Technical Content Areas:**Probability and statistics****Data analysis and presentation**

- Presentation skills
- Query-based intermediate computer skills
- Facilitation skills
- Business case

Statistical process control methods

- Factor analysis
- Capability analysis
- Inspection/Test/Validation
- Reliability analysis
- Acceptance sampling

Quality assurance audits

- ISO 9000
- Audit procedures

Corrective and preventive actions

- Eliminating non-conformities
- Verification and documentation
- Documentation creation

Benchmarking and best practice