

President's High Growth Job Training Initiative



Identifying and Addressing Workforce Challenges

May 2005

**U.S. Department of Labor
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PREFACE

This report details the efforts of President George W. Bush's High Growth Job Training Initiative in the automotive services sector. It provides an overview of the automotive services sector, outlines the President's High Growth Job Training Initiative in the industry, examines the workforce challenges facing the industry, and discusses possible solutions to address the industry's challenges.

A top priority of the U.S. Department of Labor, Employment and Training Administration (ETA) is serving America's workers by effectively meeting the workforce needs of business. Currently, the federal government invests over \$15 billion each year through a nationwide network providing employment services, unemployment services, and job training services. As part of its ongoing efforts to use taxpayer dollars more effectively and efficiently, ETA is implementing the President's High Growth Job Training Initiative. The President's High Growth Job Training Initiative is ETA's strategic effort to build partnerships among employers, industry leaders, business associations, educators, trainers, the community and technical college system, and the public workforce system. These partnerships are intended to support models that operationally demonstrate how a demand-driven workforce system can more efficiently serve the workforce needs of business while also effectively helping workers find good jobs at good wages.

The President's High Growth Job Training Initiative identified twelve high-growth industries and sectors including Advanced Manufacturing, Automotive Services, Biotechnology, Construction, Energy, Financial Services, Geospatial Technology, Health Care, Hospitality, Information Technology, Retail, and Transportation.

This report, prepared for the U.S. Department of Labor Employment and Training Administration, is a review and analysis of the work for the automotive services sector. It is intended, in part, to provide policy makers and funding sources with a strategic guide to the most critical workforce challenges facing the automotive services sector and some preliminary solutions recommended through a collaborative process that included stakeholders from private industry, the public workforce system, education, the military, and other interested parties.

The automotive services sector has demonstrated a strong commitment to workforce development. For example, key stakeholders in the industry, including trade associations, employers, and labor-management organizations have already developed a wide array of innovative solutions to address its workforce challenges. Automotive Youth Educational Systems (AYES) was established in 1997 to encourage and support the participation of high school students in the automotive services field. The AYES mission directly addresses recruitment and training workforce challenges. Automotive Retailing Today (ART) was established in 1998 by industry leaders to "dispel outdated perceptions of franchise auto dealerships and the automotive service technician career."¹

ETA recognizes and commends this commitment, and the President's High Growth Job Training Initiative will work collaboratively with the industry to expand its workforce development efforts. As this report details, the automotive services sector faces a number of pressing workforce development challenges, including boosting its image, training entry-level workers, diversifying the workforce, and maintaining high, industry-based standards in education and training. Comprehensive partnerships among education, employment, and economic

¹ Automotive Retailing Today, <http://www.autoretailing.org/about.htm>

development are needed to effectively address these challenges, and ETA seeks to partner with the sector to model such collaborations.

EXECUTIVE SUMMARY

Projected Growth of the Automotive Industry and the Services Sector

The automotive services sector is classified by the Bureau of Labor Statistics as “Automotive Technicians and Repairers.” The Standard Occupation Classification (49-3020) includes three sub-classifications: Automotive Service Technicians and Mechanics, Automotive Body and Related Repairers, and Automotive Glass Installers and Repairers. Within these sub-classifications, the service technicians and mechanics will experience the strongest growth in employment. The workforce challenges and recommended solutions for service technicians and mechanics are the main focus of this report. It is estimated that over 319,000 new employees will be needed in this field between the years 2002 and 2012 due to job creation and the replacement of workers who leave the field or retire.

The President’s High Growth Job Training Initiative

In an effort to create a more demand-driven public workforce system, the U.S. Department of Labor Employment and Training Administration (ETA) established the Business Relations Group and the President’s High Growth Job Training Initiative. Through the initiative, ETA identifies high-growth/high-demand industries such as automotive services, works with industry leaders to determine their key workforce challenges, and invests in demonstration projects that help ensure individuals gain the skills that they need to get good jobs with good wages in rapidly expanding and/or transforming industries. The foundation of this initiative is partnerships between the publicly funded workforce investment system, business and industry representatives, and education and training providers. The purpose of these partnerships is to develop innovative solutions or replicate models that address the industry’s priority workforce issues.

Why the Automotive Services Sector is Included in the President’s High Growth Job Training Initiative

The automotive services sector was identified as one of the high-growth sectors because it is projected to create a substantial number of new jobs for the economy (12-15 percent over ten years.) In addition, it is being transformed by technology and innovation requiring new skills sets for workers. The work of automotive service technicians and mechanics has evolved from mechanical repair to a high technology job. Today, integrated electronic systems and complex computers run vehicles and measure their performance while on the road. Technicians must have an increasingly broad base of knowledge about how complex components work and interact within a vehicle, as well as the ability to work with electronic diagnostic equipment and computer-based technical reference materials. Technicians and mechanics must also continually adapt to changing technology and repair techniques as vehicle components and systems become increasingly sophisticated.²

How the Challenges and Solutions of the Workforce were Identified

The President’s High Growth Job Training Initiative advanced through three phases of a process to identify the workforce challenges of the automotive services sector and to implement effective

² Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2004-05 Edition, Automotive Service Technicians and Mechanics, <http://www.bls.gov/oco/ocos181.htm>

solutions. During the Information Gathering phase, key workforce and business leaders were identified and invited to join in partnership with ETA. Concurrently, an environmental scan of the industry was conducted to identify the economic and employment picture of the industry, policy and legislative issues, key associations and labor organizations, known interaction with the public workforce system, as well as other key issues.

During the Research and Analysis phase, focus groups and structured working meetings were convened that bring together representatives of industry and business, educators, and the public workforce system to identify the industry's workforce needs and challenges and to validate research already conducted. At these working sessions participants examined workforce skills, resources and mature partnerships that already exist while identifying skills and resource gaps and other critical needs to address.

The Research and Analysis phase of the initiative culminates at a Workforce Solutions Forum during which participants from the industry, economic development, workforce development and education communities are asked to propose foundational models, prioritize key solutions, and document their recommendations onto a "Solutions Matrix." The matrix provided pertinent information about the solutions' critical attributes, key stakeholders, resources, and implementation barriers as well as strategic guidance on where investments are needed. The following is a brief overview of the key challenges and types of solutions identified:

1. Image and Promotion

Stakeholders representing the automotive service and retail sectors shared their concerns about the public's negative perception or lack of awareness about viable occupations that pay well and have growth potential. They referred to old stereotypes and misinformation about automotive careers and the "grease monkey" culture. Their challenge, as they see it, is to change the perceptions of a target audience that includes parents, guidance counselors, teachers and other role models who may influence young recruits or adult career-changers.

2. Diversity of the Workforce--Recruitment and Retention

Over the eighteen-month course of the initiative, the subject of recruitment evolved into a discussion among stakeholders about the diversity of the workforce. Stakeholders had concluded that retention was not as critical an issue as the improvement of the pipeline and the demographic make-up of the workforce. Specifically, participants wanted to see an improvement in the race, gender, and language diversity of the workforce. With regard to the pipeline of workers, it was noted that the neighborhoods and school districts from which a diverse workforce can be recruited are the same locations where automotive technician programs are being eliminated. In addition, the more affluent communities that have automotive technician programs are not making enough of an effort to recruit young women.

3. Capacity and Instruction

In examining the workforce challenge of Capacity and Instruction, stakeholders focused on recruiting more teachers and trainers and ensuring that they are industry-certified and current in their field of knowledge. While instructors need the basic soft skills (communications, basic reading, writing and math, problem solving and customer service skills), they also need to stay current with today's technology. Continuing education for instructors is therefore another key goal. The National Automotive Technicians Education Foundation (NATEF) and the Automotive Youth Educational Systems (AYES) mandate 20 to 40 hours per year of industry-based training for their instructors. There is concern among industry leaders that many of the

instructors are not staying current, as required. There is also a concern that resources are outdated. Since technology in the automotive industry is changing rapidly, training facilities must keep up with the pace of the technology.

4. Training and Education

The participants also expressed concern about the skills preparation of new employees and the re-training, or what is called “up-skilling” of incumbent employees. The attention given to the workforce challenge of Training and Education focused on the development of standardized curriculum and the importance of industry-based certification for training programs. Today, new employees are required to have both technical education and adequate soft skills.

Next Steps

In the implementation phase of the President’s High Growth Job Training Initiative for the automotive services sector, ETA will fund pilot demonstration models that address the workforce challenges and incorporate the solutions identified by industry stakeholders.

Successful pilot demonstration models that implement ETA’s mission of creating a demand driven workforce system will likely depend upon the development of strong partnerships that illustrate “The Power of E³,” (Employment, Education, and Economic Development).

In bringing together employment, education and economic development representatives during the course of the President’s High Growth Job Training Initiative, partnerships forged can develop a synergy that addresses the challenges of the 21st century workforce.

IDENTIFYING AND ADDRESSING WORKFORCE CHALLENGES

Introduction

The U.S. Department of Labor, Employment and Training Administration (ETA) through the work of the President's High Growth Job Training Initiative, and the Business Relations Group, recognizes that workforce development is not separate from economic development but an integral part of it. The Administration's philosophy is described as "The Power of E³," bringing employment, education, and economic development together to address the workforce challenges of the 21st century economy.

The automotive services sector was identified as one of the high-growth sectors because it is projected to add substantial numbers of new jobs to the economy, and it is being transformed by technology and innovation requiring new skills sets for workers. This report, prepared for ETA, is a review and analysis of the work of the President's High Growth Job Training Initiative in the automotive services sector.

The report is divided into four sections:

I. Overview of the Automotive Industry and the Automotive Services Sector

The overview provides data and background information about the automotive industry and automotive services, a high-growth sector of the industry.

II. The President's High Growth Job Training Initiative Process

This section describes the process by which the President's High Growth Job Training Initiative engages an industry and serves as a catalyst to identify workforce challenges and implement solutions.

III. Identification and Analysis of the Workforce Challenges and Solutions for the Automotive Services Sector

This section identifies and analyzes the workforce challenges of the automotive services sector. In addition, it reports the industry's recommendations to address those challenges and to implement solutions.

IV. Implementation of Solutions and Conclusion

This section addresses next steps and describes the approach to be used to implement solutions.

I. Overview of the Automotive Industry and the Automotive Services Sector

The two primary sectors of the automotive industry are automotive services and manufacturing. Automotive services include mechanical and body repairs of automobiles and light trucks, and manufacturing includes the production and assembly of automobiles, light trucks and their associated parts. The President's High Growth Job Training Initiative categorizes the manufacturing sector of the automotive industry under its Advanced Manufacturing Industry initiative and will be covered as a part of that Industry's final report. This report focuses on the automotive services sector. Two key reasons to separate the sectors are that they have different workforce and training issues and they respond differently to changes in the economy; manufacturing fluctuates more closely with the cycles of the economy, while automotive services enjoys a more steady growth.

As a component of the U.S. Gross Domestic Product (GDP), the automotive services sector falls within the "Auto Repair, Service, and Parking" category that represented one percent of the GDP in 2001 or \$87.5 billion.³ In terms of employment, this sector was identified as high-growth because, between 2002 and 2012 it is projected to create 133,000 new jobs for the economy, it will need over 180,000 additional workers to replace deceased and retired workers, and the sector is being transformed by technology and innovation requiring new skill sets for workers.

The table below lists three selected occupations that are expected to increase in employment by at least 10 percent between 2002 and 2012: automotive service technicians and mechanics, automotive body and related repairers, and all other vehicle and mobile equipment mechanics, installers, and repairers.

Occupational Statistics, Training and Earnings for Select Automotive Industry Occupations⁴

Occupation	Total Employment (000's)		2002-2012 change in total employment		2002-2012 average annual job openings due to growth/net replacement needs	Median Annual Earnings	Education/ Training Category
	2002	2012	Number (000's)	Percent			
Total, All Occupations	144,014	165,319	21,305	14.8	56,305	--	--
Automotive service technicians and mechanics	818	919	101	12.4	32,000	\$30,590	Postsecondary vocational award
Automotive body and related repairers	198	225	26	13.2	7,000	\$32,680	*Long-term on the job training
All other vehicle and mobile equipment mechanics, installers, and repairers	36	41	6	15.4	2,000	\$35,840	**Moderate-term on-the-job training

*More than 12 months of on-the-job training or combined work experience and formal classroom instruction. This can include formal and information apprenticeships that may last up to five years.

**Skills needed to be fully qualified can be acquired during 1 to 12 months of combined on-the-job experience and informal training.

³ U.S. Department of Commerce, Bureau of Economic Analysis, Gross Domestic Product by Industry, <http://www.bea.gov/bea/dn2/gpox.htm#1994-2001>

⁴ The Bureau of Labor Statistics; Detailed Employment Projection Statistics; Occupational Employment, Training, Earnings; Percent Change in Total Employment 2002 – 2012, <http://www.bls.gov/emp/emptab21.htm>

Automotive service technicians and mechanics use their high-tech skills to inspect, maintain, and repair automobiles and light trucks that have gasoline engines. Automotive body repairers use special equipment to restore damaged metal frames and body sections. The table includes the total number of workers employed, the projected growth between 2002 and 2012, the average annual job openings due to both growth and the need to replace workers who either retire or leave the industry for other reasons, the median earnings and the type of training or education that is required in the occupation. The automotive services occupations listed on the previous page are projected to create 133,000 new jobs between 2002 and 2012. By contrast, the manufacturing sector is projected to create 45,000 jobs in those ten years in occupations such as Motor vehicle body and trailer manufacturing and Motor vehicle parts manufacturing.⁵

The Changing Nature of the Occupation

Traditionally, automotive service technicians were called "mechanics." The increasing sophistication of automotive technology now requires workers who can use computerized shop equipment and work with electronic components, while maintaining their skills with traditional hand tools. Workers with these new skills are increasingly called "service technicians." Today, integrated electronic systems and complex computers run vehicles and measure their performance while on the road. Technicians must have an increasingly broad base of knowledge about how complex components work and interact within a vehicle, as well as the ability to work with electronic diagnostic equipment and computer-based technical reference materials.

In the most modern shops of automobile dealers, service technicians use electronic service equipment, such as infrared engine analyzers and computerized diagnostic devices. These devices diagnose problems and make precision adjustments with precise calculations downloaded from large computerized databases. The computerized systems provide automatic updates to technical manuals and unlimited access to manufacturers' service information, technical service bulletins, and other information databases, which allow technicians to keep current on trouble spots and to learn new procedures.

Technicians and mechanics must also continually adapt to changing technology and repair techniques as vehicle components and systems become increasingly sophisticated. They now use computerized shop equipment and work with electronic components while maintaining their skills with traditional hand tools.⁶

To keep up with the pace of this rapidly advancing field, training and retraining will continue to be key workforce issues for the automotive services sector. The National Automotive Technicians Education Foundation suggests in its "Top 10 Tips" for students "Make a commitment to life-long learning. There is constant change in technology so take advantage of additional training whenever it is available."⁷

⁵ Jay Berman, "Industry Output and Employment Projections to 2012," Monthly Labor Review, February 2004, p. 65)

⁶ Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2004–2005 Edition, Automotive Service Technicians and Mechanics, <http://www.bls.gov/oco/ocos181.htm>

⁷ National Automotive Technicians Education Foundation (NATEF); <http://www.natef.org/career/topten.cfm>

Training, Education, and Certification

Training for these automotive services career opportunities may occur at secondary and post secondary public schools (stand-alone or articulated programs), and private educational institutions. The National Automotive Technicians Education Foundation (NATEF), an affiliate of the National Institute for Automotive Service Excellence (ASE), establishes the certification standards for automotive services training facilities. NATEF certification is considered the industry-endorsed benchmark for training programs. ASE establishes industry-recognized credentialing for professional instructors and technicians. By March 2004, 1,630 high school and post secondary programs were NATEF-certified.⁸ Most automotive manufacturers in the United States have established schools or partnerships with post-secondary institutions that are NATEF-certified to train technicians.

Another organization, Automotive Youth Educational Systems (AYES), is a partnership among manufacturers, local dealerships and selected local high schools and technical prep schools. AYES endorses 389 of the NATEF-certified high school programs and has a working partnership with 4,328 participating dealership franchises in 45 states.⁹ The mission of AYES is to encourage students to pursue careers in the fields of automotive service technology or collision repair and refinish. Since 1999, AYES has placed over 5900 student interns, becoming a conduit that feeds the labor force pipeline with entry-level skilled workers.¹⁰

Apprenticeship is another training option for students in the automotive services field. The apprenticeship model helps participants attain high performance through a cohesive process which links formal instruction in the form of a degree or certification with a standardized process of delivering and measuring hands-on/on-the-job learning (OJL).¹¹ Through a grant awarded by the Employment and Training Administration, AYES developed National Apprenticeship Guidelines for its Automotive Technician Specialist training programs. There are at least five other apprenticeship programs related to the automotive services field including Automobile Body Repairer and Automobile Mechanic.

⁸ National Automotive Technicians Education Foundation, <http://www.natef.org/>

⁹ National Institute for Automotive Service Excellence, <http://www.asecert.org>

¹⁰ Automotive Youth Educational Systems, <http://www.ayes.org>

¹¹ Career Voyages website; <http://www.careervoyages.gov/automotive-apprenticeshipws.cfm>

II. The President's High Growth Job Training Initiative Process

The President's High Growth Job Training Initiative is designed to provide national leadership for a demand-driven workforce system that ensures no worker is left behind. It 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. The initiative is designed to ensure that worker training and career development resources in the public workforce system are targeted to helping workers gain the skills and competencies they need to obtain jobs and build successful careers in these industries. Through the initiative the Employment and Training Administration (ETA) of the U.S. Department of Labor identifies high-growth/high-demand industries, works with industry leaders to determine the industry's workforce challenges, and invests in demonstration projects that help ensure individuals can gain the skills they need to get good jobs in rapidly expanding or transforming industries.

The foundation of this initiative is partnerships among the publicly funded workforce investment system, business and industry representatives, and education and training providers, such as community colleges. The purpose of these partnerships is to develop innovative solutions or replicate models that address a particular industry's workforce issues. These solutions demonstrate how a demand-driven workforce system can more efficiently serve the workforce needs of business while effectively helping workers find good jobs with good wages and promising career paths.

The President's High Growth Job Training Initiative process engages 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. Community colleges and other education and training providers assist in developing competency models and training curricula and train new and incumbent workers. The publicly funded workforce investment system accesses human capital (youth, unemployed, underemployed, and dislocated workers), assists with training programs, and places trained workers in jobs.

ETA is modeling the power of this partnership at the national level through investments in demonstration projects in twelve high-growth industries, including the automotive services industry. Each of the 12 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 industry that is projected to grow.

Investments in these sectors are designed to achieve four broad outcomes:

1. Targeted investment of workforce development resources and support for private and public sector partnerships to ensure the development of workers' skills in demand occupations based on industry need.
2. Increased integration of community and technical college efforts with business and the public workforce system activities to meet the skills training needs of high-growth industries.
3. Increased opportunities for employers to use apprenticeship training as skills development methodology, combining on-the-job training and academics, to ensure a pipeline of skilled workers.

4. Providing workers with paths to career enhancing opportunities in high-growth occupations.

By expanding the local workforce system's capacity to be market-driven, responsive to local economic needs, and a contributor to the economic well-being of the community, ETA is promoting workforce quality, enhanced productivity, and economic competitiveness.

The President's High Growth Job Training Initiative Process in the Automotive Industry and the Automotive Services Sector

The automotive services sector was identified as one of the high-growth sectors because it is projected to create a substantial number of new jobs for the economy (12-15 percent over ten years). In addition, it is being transformed by technology and innovation requiring new skills sets for workers. The work of automotive service technicians and mechanics has evolved from mechanical repair to a high technology job. Today, integrated electronic systems and complex computers run vehicles and measure their performance while on the road. Technicians must have an increasingly broad base of knowledge about how complex components work and interact within in a vehicle, as well as the ability to work with electronic diagnostic equipment and computer-based technical reference materials. Technicians and mechanics must also continually adapt to changing technology and repair techniques as vehicle components and systems become increasingly sophisticated.

Prior to launching the President's High Growth Job Training Initiative in the automotive services sector, key workforce and business leaders were identified and invited to partner with ETA to address the workforce challenges faced by the industry. Concurrently, an environmental scan of the industry was conducted to identify the economic and employment picture of the industry, policy and legislative issues, key associations and labor organizations, interaction with public workforce system, as well as other key issues.

Once the initiative was launched, it proceeded through three phases that complete the initiative's process: **Information Gathering, Research and Analysis, and Implementation**.

Information Gathering and the Executive Forum

To validate and complement the information gathered for the environmental scan, an Executive Forum was held in Greenville, South Carolina on October 30, 2002. Convened by ETA's Assistant Secretary Emily Stover DeRocco, the forum served as an opportunity for business and industry leaders to discuss their current and future workforce issues and concerns with ETA. It also allowed Assistant Secretary DeRocco the opportunity to share the Administration's goals and plans to meet the 21st century economy's needs for a skilled workforce.

Twenty-one automotive industry executives representing dealerships, manufacturers and industry organizations attended the Executive Forum, which coincided with a Board of Directors meeting of the Automotive Youth Educational Systems. Among the companies and associations represented were the National Automobile Dealership Association, Ford Motor Company, Toyota Motor Sales, Mercedes-Benz USA, Volkswagen of America, the National Alliance of Business, Francis Tuttle Technical Center, American Honda Motor Company, BMW US Holding Corporation, Subaru of America, General Motors Corporation, and DaimlerChrysler Corporation.

A few critical workforce issues that were raised for the first time at the Executive Forum became key issues throughout the initiative, including:

- The need to educate parents, teachers, guidance counselors and other influential leaders about the industry and its viable career opportunities,
- The need to improve the industry's image in communities from which skilled workers can be recruited, and
- The need to establish reasonable training and education requirements for instructors and training programs.

During the Executive Forum, industry leaders pledged their support and their resources to further assist the initiative. The executives also learned about the public workforce system, how it can be used to provide employment services and training, and its eagerness to establish strong and effective partnerships with business.

The Workforce Development Forum

To further validate information gathered and to examine workforce challenges in more detail, ETA convened an Automotive Services Industry Workforce Development Forum on April 16, 2003, in Washington, D.C. Twenty stakeholders representing the human resources and training units of key businesses in the automotive services sector met with Assistant Secretary DeRocco and representatives from ETA's Business Relations Group, Office of Workforce Investment, Office of Apprenticeship Training, Employer and Labor Services, and Office of Job Corps. By joining business leaders with representatives from the education and public workforce communities, these meetings provided an illustration of ETA's "Power of E³" philosophy.

Among the companies and associations represented were American Honda Motor Company, BMW of North America, DaimlerChrysler Corporation, General Motors Corporation, Hyundai Motor America, Mercedes-Benz USA, Mitsubishi Motor Sales of America, Nissan North America, Subaru of America, Toyota Motor Sales, Volkswagen of America, the National Automobile Dealers Association, Automotive Youth Educational Systems, Snap-On Incorporated, SPX Service Solutions, and the National Institute for Automotive Service Excellence.

Three key areas emerged as major workforce challenges facing the industry: image and promotion of technical trades or crafts, recruitment and retention of employees, and training and education. These themes echoed and validated the key areas identified at the previous Executive Forum.

Strategic Development Team Conference Calls

A few months after the Workforce Development Forum, ETA convened two conference calls with industry stakeholders, forming a Strategic Development Team to identify solutions to address the workforce challenges. Prior to the conference calls, stakeholders were invited to use a web-based information-gathering tool to identify key workforce issues and learn more about the topics for discussion of the two conference calls.

The conference calls were made on August 26 and 27, 2003, and participants included representatives from BMW of North America, DaimlerChrysler Corporation, GM Service Operations, Mitsubishi Motors North America, Nissan America, Snap-On Tools, SPX Valley

Forge Technical Information Services, Strategic Partnerships, Automotive Youth Educational Systems, Toyota Motor Sales, Automotive Service Excellence, National Automotive Technicians Education Foundation, Automotive Retailing Today, Design and Manufacturing Alliance, National Automobile Dealers Association, Alabama Department of Industrial Relations, Alabama Employment Services, Michigan Department of Career Development, Central Mississippi Planning District, American Association of Community Colleges, and Macomb Community College.

The result of these calls was additional validation of the key workforce issues raised at previous meetings and the sharing of information about existing programs and projects that already address the industry's challenges.

The Automotive Services Industry Workforce Solutions Forum

The culmination of the President's High Growth Job Training Initiative process for the automotive services sector process took place during the Industry Workforce Solutions Forum on April 1, 2004, at the headquarters of SkillsUSA in Leesburg, Virginia. Applying its demand driven, "Power of E" philosophy, ETA invited employers, educators, students, representatives of the public workforce system, and representatives from the military to the forum. At this forum participants were asked to brainstorm foundational models, prioritize key solutions, and document the critical attributes, key stakeholders, resources, implementation barriers and other pertinent information onto a "solutions matrix" to offer strategic guidance and suggests where public and private resources should be invested.

After hearing brief presentations about the initiative's progress to date, participants were divided up into "issue" rooms where the discussions focused on one of the four key workforce challenges: **Image and Promotion, Diversity of the Workforce, Capacity and Instruction, and Training and Education**. A facilitator trained in the Nominal Group Technique,¹² used to develop consensus, led the discussions. The four groups clarified the workforce challenges they were studying, used a voting procedure to determine their priorities, and broke into sub-groups that developed actionable solutions to the workforce challenges they chose. By the end of the day, over 250 solutions were identified (see Attachment 2) and twenty-nine were documented in detail on a "solutions matrix" (see Attachment 1).

¹² Nominal Group Technique: A Users' Guide, Randall B. Dunham, Ph.D., University of Wisconsin, <http://instruction.bus.wisc.edu/obdemo/readings/ngt.html>

III. Identification and Analysis of the Workforce Challenges and Solutions for the Automotive Services Sector

By the time stakeholders met at the Automotive Services Workforce Solutions Forum, workforce challenges and key issues were identified, validated, and discussed in great detail. The results or product of the Solutions Forum was a set of solutions matrices that document the workforce challenges and solutions that could be implemented as pilot demonstration models. The matrices include the four main challenge areas, listed and then detailed below:

- Image and Promotion of the Industry
- Diversity of the Workforce
- Capacity and Instruction
- Training and Education

Challenge: Image and Promotion

Through the President's High Growth Job Training Initiative in the automotive services sector, the Employment and Training Administration (ETA) of the U.S. Department of Labor (DOL) has worked with industry leaders to identify the primary workforce challenges facing the automotive services sector, as well as possible solutions to those challenges. Extensive feedback from industry leaders during the Executive Forum enabled ETA to determine the automotive services industry's workforce needs. At the Automotive Services Workforce Solutions Forum, a wide variety of stakeholders worked together to validate the sectors workforce challenges and to identify potential solutions to those challenges. The following section of this report provides background on the four broad categories of challenges facing the automotive services sector and a brief overview of the solutions to each of those challenges that attendees identified during the Automotive Services Workforce Solutions Forum.

Stakeholders representing the automotive service and retail sectors shared their concerns about the public's negative perception or lack of awareness about viable occupations that pay well and have growth potential. The challenge, as they see it, is to change the perceptions of a target audience that includes parents, guidance counselors, teachers and other role models who may influence young recruits or adult career-changers. The industry was already beginning to address this issue. Automotive Retailing Today had been established by industry leaders to promote a better image for the industry, especially at the retail and service levels. Their website mentions the need to "dispel outdated perceptions of franchise auto dealerships and the automotive service technician career."

Solutions: Image and Promotion

The desire for a national campaign to promote the image of the automotive services sector was a recurring theme throughout most of the industries studied by the President's High Growth Job Training Initiative. As in other industries, the automotive services sector leaders would like to make an appeal to parents, guidance counselors, adult career counselors, teachers and other decision makers and leaders who may influence a potential recruit's career decisions. Viable careers that offer good pay, growth opportunities and involve working with advanced technical

applications should be an “easy sell” with the development of an imaginative and strategically launched promotional campaign.

During the Automotive Services Industry Workforce Solutions Forum, the group focusing on Image and Promotion divided itself into three sub-groups that studied how to deliver a positive message about the career opportunities available in automotive services, how to engage the public in a promotional campaign, and how to identify the most effective champions of the industry.

Delivery of Message—National Media Campaign

Participants suggested launching a nationwide campaign to increase the prestige and value of the “trades.” One solution called for the development of a “Yes, my child” campaign which combats the conventional wisdom among many parents that technical training is considered important but not necessarily the best choice for their children. One of the goals discussed was to increase the number of students and parents who see automotive service careers as viable and desirable choices by using printed materials that are distributed at dealerships and service departments. It was suggested that this be complemented with a national media campaign on TV during prime time television as well as videos, and public service announcements geared toward students, teachers, and parents.

Engage Stakeholders

This sub issue was defined as how to engage stakeholders and influence decision makers about careers in automotive technical services. Suggestions included the creation of a “What’s Cool” campaign on the rewards and benefits of this career, aimed at parents, children, and teachers. Key messages could focus on the rewards and benefits of careers in automotive services. Another solution that was recommended was the organization of an Open House – Career Day at automotive manufacturers’ education centers. Parents, counselors, teachers, and school board members could be invited to see and experience automobile technology, from cars to diagnostic equipment. The group urged policy makers and stakeholders to utilize existing resources including automobile manufacturers, Automotive Retailing Today, Automotive Youth Educational Systems, the National Automotive Technicians Education Foundation, Automotive Service Excellence, the U.S. Military, Association for Career and Technical Education, and the National Education Association to avoid a duplication of efforts.

Identifying Champions of the Industry

This sub-group recommended the creation of neighborhood campaigns, enlisting well-known organizations and advocates to help change pre-existing notions about the automotive industry. It was suggested that powerful advocates might include a well-known government leader or politician, who highlights the good pay, good working conditions, and the contributions made to the economy by automobile manufacturers. Another suggested solution was the development of a Peer Success Campaign, or a peer-to-peer campaign to try to enlist people into the industry. Celebrity names were also raised such as Jay Leno or Jesse James (from the “Monster Garage” television show) who could be recruited to deliver a positive public image of the automotive services sector.

Challenge: Diversity of the Workforce

Over the course of the initiative, the recruitment discussions among stakeholders focused on workforce diversity. The strategic development team of stakeholders that was formed during the conference calls had decided that retention was not as critical an issue as the improvement of the pipeline and the demographic make-up of the workforce. Specifically, participants wanted to see an improvement in the race, gender, and language diversity of the workforce.

With regard to the pipeline of workers, it was noted that the neighborhoods and school districts from which a diverse workforce can be recruited are the same locations where automotive technician programs are being eliminated. In addition, the more affluent communities that have automotive technician programs are not making enough of an effort to recruit young women. In 2004 it was estimated that women made up only 2.4 percent of the automotive service technicians and mechanics workforce.¹³

Discussions about the recruitment of women revealed an interesting benefit for the company's bottom line. Since women tend to be the primary customers who turn in the family car for repairs, the dealership can benefit by having more women on staff that could (presumably) relate better to the female customers. Industry leaders are also reaching out to minorities, especially the growing Hispanic and Latino populations. The Bureau of Labor Statistics projects an increase of 33 percent between 2002 and 2012 in the Hispanic and Latino labor force. Currently, Hispanic and Latino workers make up 20.5 percent of the automotive service technicians and mechanics workforce.¹⁴

Cooperation among the industry, community organizations, faith-based organizations and even the Girl Scouts and Boy Scouts is being explored and considered to tap into new pools of labor and to capitalize on the growth of these and other labor force groups. Some of these solutions have already been piloted, such as the translation of the certification exam.

Solutions: Diversity of the Workforce

At the Automotive Services Workforce Solutions Forum, the group focusing on diversity divided itself into sub-groups that studied how the automotive services sector should target minority populations and women. As mentioned above, groups were targeted because they represented a fast growing population or, in the case of women, a medium that would help customer service and public relations with primary customers.

Recruiting Minority Populations

The sub group suggested identifying a national minority image figure for the automotive industry. It would also like to see the establishment of a scout troop sponsorship initiative and/or an automotive technician merit badge or expanded soap box derby. The group suggested that scholarships be provided to minority organizations such as the NAACP or the Hispanic Chamber of Commerce. Participants also suggested linking automotive technology to the studies of math, science, reading, and English language skills at an early age and to develop curricula that is familiar and engaging.

¹³ Bureau of Labor Statistics, Household Data Annual Averages, Employed Persons by detailed occupation, sex, race, and Hispanic origin; <http://www.bls.gov/cps/cpsaat11.pdf>

¹⁴ *ibid.*

Recruiting Young Women

To target and recruit the female population, it was suggested that stakeholders and policy makers establish incentives and education programs to promote hiring of women. Another suggestion was the establishment of links between women's shelters and other programs to local automotive technical programs for recruitment. The sub group also recommended the development of a media campaign that focuses on the career ladder for women in this industry.

Translating the Automotive Technician's Certification Exam

During the course of the initiative some stakeholders theorized that if the certification exams were translated into other languages, many skilled and qualified automotive service technicians who need improvement with their English proficiency could be identified. This sub group suggested how to identify those technicians. Other solutions identified include the integration of vocational awareness and skills into early education, promoting the use of online availability of curricula and testing, and funding release time and scholarships to minority technicians to become certified instructors

Challenge: Capacity and Instruction

While instructors need basic soft skills (communications, basic reading, writing and math, problem solving and customer service skills), they also need to stay current with today's technology. Continuing education for instructors is therefore another key goal. NATEF and AYES mandate 20 to 40 hours per year of industry-based training for their instructors. Stakeholders present at the solutions meeting expressed concern that many of the instructors are not staying current as required. They also reported that some facilities and equipment are outdated. Since technology in the automotive industry is changing rapidly, training facilities must keep up with the pace of the technology.

Participants were pleased by some developments in training and education and cited the activities that corporations and dealerships have put into place at Toyota University, General Motors University, proprietary training programs, online courses, and teacher training and shadowing programs. On the other hand, they are concerned that many training programs (including some Job Corps programs) were not industry-certified by NATEF. To these stakeholders it means that training is not state-of-the-art and more importantly, it is not industry demand driven.

Solutions: Capacity and Instruction

At the Automotive Services Workforce Solutions Forum, the group assigned to Capacity and Instruction focused on three topics related to recruiting more trainers and ensuring that they are industry-certified and current in their field of knowledge. All three solutions reiterated stakeholders' wishes that education and training be based on industry-led standards.

Promoting the Importance of Industry-Certified Training Programs

Participants wanted to see benchmarks used for funding training programs to incentivize certification for states and local school districts. At the post-secondary level, they believed that state funding and workforce funding for training and education should be tied to industry standards by legislation. Finally, they suggested that national legislation should be passed to tie Carl D. Perkins Vocational and Technical Education Act funding to industry certification.

Recruiting more industry certified instructors

Stakeholders who attended the solutions meeting would like to see increased compensation and incentives to attract and retain quality instructors. They would also like monetary incentives established for working technicians who are interested in becoming instructors.

Establishing training for instructors of apprenticeships

Turning to apprenticeship as one training solution, participants recommended the development of train-the-trainer programs that would have to be embraced by industry as well as the public education system.

Challenge: Training and Education

The group discussing training and education at the solutions meeting focused on the development of standardized curriculum and the importance of industry-based certification for training programs. Participants felt that new and incumbent employees lack the level of training and education necessary to meet most industry standards. Today, new employees are required to have both technical education and adequate soft skills such as problem solving and customer service.

A related goal of stakeholders was the examination and development of standards for all public, private, technical and community college programs to create a baseline level for training and education for all technicians at all levels.

The focus on standardized, industry-based education and training is neither new nor exclusive to the automotive services sector. In the 1990's, the National Skill Standards Board convened government, industry, and education partners in an attempt to improve the skills of the American workforce in fifteen industrial sectors so that the country could improve its competitive posture in the world economy. Among their outcomes are standards that are now being used by the manufacturing sector.

Solutions: Training and Education

In examining those areas where government and ETA can help the industry, representatives felt strongly about asking the federal government to tie NATEF certification to all automotive services training programs that receive Carl D. Perkins Vocational and Technical Education Act funding. They would also like to see all workforce programs and Job Corps automotive services programs NATEF-certified. They believe these funding issues represent key examples of ETA's demand-driven philosophy.

As mentioned above, progress is being made and more school programs are being certified. At the same time, some programs do not pass their re-certification requirements and others remain stuck in a pre-certification process. The industry representatives would like to see more progress with those two program groups.

The group divided themselves into sub-groups that focused on credentialing and curriculum.

Establishing universally recognized credentialing or licensing system for service technicians at all levels of the career ladder

Participants recommended the establishment of a policy board of stakeholder representatives whose mission is to identify and administer a credential/licensing structure. The proposed board would maintain a centralized database, define training requirements to achieve credentials and establish certification criteria for training providers. They asked that the Department of Labor be approached to staff the policy board.

Developing a uniform training and education program for entry level workers

The group endorsed the creation of a national model for training entry-level employees for the automotive industry. It was felt that this model should address both academic and technical standards and be based on a developmental continuum moving from elementary school through post secondary education.

Establishing industry standards for training and training programs

Recognition of NATEF as the industry's standard-setting entity was a highly endorsed solution throughout the initiative.

IV. IMPLEMENTATION OF THE SOLUTIONS AND NEXT STEPS

The Employment and Training Administration (ETA) supports comprehensive business, education, and workforce development partnerships to develop innovative approaches or replicate models that operationally demonstrate how a demand-driven workforce system can more effectively serve the workforce needs of business while also effectively helping workers find good jobs with good wages and promising career pathways. Grants awarded under the President's High Growth Job Training Initiative implement unique and innovative, industry-driven skills training, certification, and career ladder development programs that support identified automotive services sector's workforce and economic development needs.

The automotive services sector's ability to collaborate in such a competitive business environment is unique. The President's High Growth Job Training Initiative worked with leaders from every major automotive company with manufacturing plants or sales outlets in the United States. In discussing issues such as training and education, all their competitive tendencies were left at the door. As a result, they remain enthusiastic, keenly focused and have achieved impressive results in the areas of training, education, and certifying technicians.

While the industry is seeking support for its training and education initiatives, there are signs that progress is already being made. More schools, instructors, and technicians are being certified to keep up with the demand for new technicians and retiree replacements. The number of automotive technician programs certified by the National NATEF, grew from 1,246 in 2002 to 1,630 today.¹⁵ The number of schools and programs endorsed by AYES is also expanding. Currently 389 high school programs with 4,328 participating dealership franchises in 45 states are under the AYES umbrella. This represents an increase from 247 programs, 2,604 dealerships and 41 states just three years ago.¹⁶ While acknowledging that both these developments are encouraging, the stakeholders who participated in the initiative indicated that more assistance is needed and that the pace of progress needs to speed up to meet demand.

In the implementation phase of the President's High Growth Job Training Initiative for the automotive services sector, ETA funded pilot demonstration models that address the workforce challenges and incorporate the solutions identified by sector stakeholders.

Based on the challenges identified by the automotive services industry and highlighted in this report, the U.S. Department of Labor (DOL) has made a series of investments totaling more than \$11 million, as of January 1, 2005, to partnerships between businesses, community colleges, workforce investment boards, and others to address the workforce needs of the automotive services industry. These investments address the following challenges:

- Image and promotion of the industry
- Capacity building of training programs
- The standardization of education and training
- Increasing the diversity of the workforce
- Recruitment and entry-level training for youth
- Upgrading the skills of instructors

¹⁵ National Automotive Technicians Education Foundation

¹⁶ Automotive Youth Educational Systems

Solutions are national, state, and local in scope and address industry challenges in unique and innovative ways. The following are brief summaries of solutions in which ETA invested in order to address the aforementioned industry challenges. For more detailed information on these investments, including grantees, partners, and outcomes, please visit www.doleta.gov/BRG.

- Training for Auto Alliance International Vehicle Production, a \$5 million grant to Downriver Community Conference in Flat Rock, Michigan to train automotive workers for new production processes. (\$25 million leveraged funds)
- Automotive Youth Educational Systems, a \$2,200,000 grant to extend the reach of a demand-driven automotive technician curriculum and training process through a new blended training delivery model (including on-line features). (\$5,170,315 in leveraged funds)
- Automotive Retailing Today, a \$150,000 grant to gather, validate, and deliver information and data about career opportunities in the automotive industry to career-related websites and portals and to public workforce development professionals. (\$323,070 leveraged funds)
- ASE Bilingual Outreach Program, a \$300,000 grant to the National Institute for Automotive Service Excellence to identify and certify more automotive service technicians by translating some of the most in-demand certification exams into Spanish and by having these exams administered throughout the country. (\$300,000 leveraged funds)
- Eastfield College, a \$837,424 grant to offer training to over 120 individuals, including support services, internship experiences, and an English as a Second Language component. (\$2,770,705 leveraged funds)
- Gateway Technical College, a \$900,000 grant to assist training programs in pursuit of the industry-driven certification by the National Automotive Technicians Education Foundation (NATEF) using a blended training delivery system including on-line features. (\$2,110,000 leveraged funds)
- Girl Scouts of the USA, a \$200,000 grant to develop and distribute information and obtain hands-on experience at an employer, geared toward young girls, educating them about automotive services as a career option and building their skills in car repair and maintenance. (\$400,000 leveraged funds)
- Shoreline Community College, a \$1,496,680 grant to develop curriculum based on a new set of industry-driven competency requirements and to train approximately 175 automotive technicians in the new curriculum. (\$1,615,778 leveraged funds)

- Pennsylvania Automotive Association, a \$95,000 grant to develop a work-based training opportunity or on-the-job mentor/intern program for the Harrisburg Career and Technology Academy to strengthen business connections and to provide career opportunities to students facing social and economic barriers. (\$121,200 leveraged funds)
- United States Hispanic Chamber of Commerce Foundation, a \$136,000 grant to recruit, train, and foster career paths for twenty Hispanic-Latino automotive technicians within Miami, Florida and Los Angeles, California. (\$246,000 leveraged funds)
- Automotive Youth Educational Systems, a \$600,000 grant to assist develop industry-standard automotive technician training programs at technical high schools. (\$5,170,315 leveraged funds)

The automotive services sector is vital to the American economy. Between 2002 and 2012 it is projected to create 133,000 new jobs for the economy and will need over 180,000 additional workers to replace deceased and retired workers. The sector and the automotive industry at large perform services that are key to our gross domestic product and our primary mode of transportation. However, the industry faces a wide array of workforce challenges, from an industry image that could be improved to the need to maintain high industry-led standards in education and training. These challenges must be addressed to ensure the continued vitality of the automotive services sector.

Through the President's High Growth Job Training Initiative in automotive services, ETA has invested in a wide array of innovative workforce partnerships. These investments were made after ETA worked closely with industry leaders to determine the primary hiring and training challenges facing the industry. These partnerships demonstrate how a demand-driven workforce system can more efficiently serve the workforce needs of business while effectively helping workers find good jobs with good wages and promising career paths.

However, these investments are just one step in ETA's ongoing commitment to the automotive services industry. ETA is committed to identifying successful models and resources through the President's High Growth Job Training Initiative and sharing them with the public workforce system. Sharing these models and resources will enable industry stakeholders in states and localities around the country to develop successful partnerships that will help the industry address its key workforce challenges while preparing workers for jobs in a high-growth, economically vital industry.

The success of these pilot demonstration models that implement ETA's mission of creating a demand driven workforce system are dependent upon the development of strong partnerships that illustrate "The Power of E³," (employment, education, and economic development).

In bringing together employment, education and economic development representatives during the course of the President's High Growth Job Training Initiative, partnerships can begin to address the challenges of the 21st century workforce.

Automotive Services Sector Solutions Matrix - Full

Automotive	Critical Attributes	Key Stakeholders	Shared Resources	Implementation Barriers	Anything Else?
<p>Issue/Challenge: Image and Promotion</p>					
<p>Issue: Delivery of Message</p> <p>Solution 1</p> <p>Conduct a nationwide campaign to increase the prestige and value of the “trades.”</p> <p>Overall Solution 1</p>	<ul style="list-style-type: none"> ▪ (For example: Younger Audience; Scholarships, “Army of One,” or Patriotism, 9/11 Police, Fire fighters, emergency services) ▪ Should promote high-tech aspects, meaningful, good paying profession, credentials ▪ Must be industry effort like “Drink Milk,” “The Other White Meat.” ▪ Should be phased in over years. ▪ Documentaries (networks). Capitalize on “Garage Theme.”) ▪ Should have Strategic Plan ▪ Should have project leader 	<ul style="list-style-type: none"> ▪ Manufacturers ▪ Suppliers ▪ Dealers ▪ Government – local/state/Fed ▪ State/Fed Departments of Education ▪ WIBs ▪ Certified Educators ▪ Credentialing agencies ▪ Trade Associations ▪ Unions ▪ Labor Force ▪ PTAs/Community ▪ Chambers of Commerce ▪ Department of Defense 	<ul style="list-style-type: none"> ▪ Consolidate “wedged” government dollars local/state/Fed ▪ Identify the “lead” “Detailed” Corporate HR ▪ Funds for workgroup session/development ▪ American Association of Advertisement Agencies (technical resource) 	<ul style="list-style-type: none"> ▪ Government \$ for marketing ▪ Lack of a clear national policy advocate 	
<p>Issue: Delivery of Message</p> <p>Solution 2</p> <p>Develop a “Yes My Child” Campaign</p>	<ul style="list-style-type: none"> ▪ Parent-Focused ▪ High Level Technical Training would support high-wage, high-growth jobs ▪ Portability ▪ Economic 	<ul style="list-style-type: none"> ▪ Skills USA ▪ Parents ▪ Teacher ▪ Youth ▪ Employees ▪ Post-secondary ▪ Automotive Youth 	<ul style="list-style-type: none"> ▪ Guidance Counselors ▪ School systems ▪ C.O.R.D. ▪ High-Stakes Testing ▪ Articulation 	<ul style="list-style-type: none"> ▪ Money ▪ No Child Left Behind ▪ Perkins ▪ High Stakes Testing 	<ul style="list-style-type: none"> ▪ Subset of a media campaign

<p>(Combats the “conventional wisdom” that Tech Training is considered important, but not necessarily for my child)</p> <p>Overall Solution 2</p>	<p>Component</p> <ul style="list-style-type: none"> ▪ Credential ▪ Career Ladder ▪ Lifestyle/Perception ▪ Can’t offshore-job security 	<p>Educational Systems</p> <ul style="list-style-type: none"> ▪ Automotive Service Excellence 	<p>CTE/ACTE Academic Achievement</p> <ul style="list-style-type: none"> ▪ DOL-ETA ▪ Department of Education ▪ WIBs ▪ Skills USA ▪ Military ▪ National Assoc of Manufacturers 		
<p>Issue: Delivery of Message</p> <p>Solution 3</p> <p>Increase the number of students & parents who see auto service careers as viable & desirable choices through: Printed materials, campaign thru Dealerships & Service Department, National Media Campaign on TV during Prime time, television and video, public service announcement geared toward students, teachers, parents.</p> <p>Overall Solution 3</p>	<ul style="list-style-type: none"> ▪ Strategic Plan ▪ Project leader ▪ Positively change student decisions re: careers in auto service industry ▪ Persuade dealers to participate in junior & senior high schools outreach & campaign support ▪ Focus on regional & minority messages – Spanish language/minority photos ▪ Emphasize “learn to earn” message ▪ Local partnerships 	<ul style="list-style-type: none"> ▪ Dealers and dealer associations ▪ Parents ▪ Government - Fed/State/local ▪ WIBs ▪ Trade Associations ▪ PTAs ▪ Chambers of Commerce (state and local) ▪ Unions ▪ Educators (teachers, counselors, Boards of Ed., Superintendents) 	<ul style="list-style-type: none"> ▪ Fed. – Department of Labor ▪ Department of Education ▪ Business/manufacturers/suppliers ▪ Dealers ▪ American Association of Advertising Agencies – national ad campaign ▪ Skills USA ▪ Trade Associations 	<ul style="list-style-type: none"> ▪ None 	
<p>Issue: Engagement</p> <p>Solution 4</p>	<ul style="list-style-type: none"> ▪ Develop program that targets parents/children/teacher 	<ul style="list-style-type: none"> ▪ Nat’l Education Assoc. (NEA) ▪ Dept. of Labor 	<ul style="list-style-type: none"> ▪ Funding for development of “What’s Cool” campaign (hire marketing 	<ul style="list-style-type: none"> ▪ Changing current perception of 	

<p>Create a “What’s Cool” Campaign on the Rewards & Benefits of this career, aimed at parents/children/teachers (key messages to focus on rewards/benefits of auto career).</p> <p>Overall Solution 4</p>	<p>s (key messages to focus on rewards/benefits of auto career)</p> <ul style="list-style-type: none"> Determine optimal delivery mechanisms (i.e. appropriate media) that is adaptable to national state/local needs 	<ul style="list-style-type: none"> State Depts. Of Education State WIBs Automotive Youth Educational Systems (AYES) Local schools (parents/teachers/counselors) Military Skills USA Original Equipment Manufacturers 	<p>firm, conduct market research on attitudes)</p>	<p>trade jobs</p> <ul style="list-style-type: none"> Maintaining long-term focus and support 	
<p>Issue: Engagement</p> <p>Solution 5</p> <p>Open House – Career Day at Manufacturers’ Education Centers: Invite parents, counselors, teachers, school board members. They see cars, technology & diagnostic equipment.</p> <p>Overall Solution 5</p>	<ul style="list-style-type: none"> Develop national framework for classroom career visits to auto service centers (possibly a nationally recognized day like “Bring Daughter to Work”) – determine appropriate age group Develop general course outline or kit for local delivery (include variety of careers and career path options) 	<ul style="list-style-type: none"> Local schools Dealerships National Auto Dealers Assoc. (NADA) Automotive Service Assoc. (ASA) Automotive Service Excellence (ASE) Department of Labor Automotive Youth Educational Systems Local Chambers of Commerce Auto Aftermarket Service Prof (AASP) Original Equipment Manufacturers 	<ul style="list-style-type: none"> Funding Time of school personnel, students Costs of travel, materials (paper, DVD, CD-ROM, etc.) Development Time 	<ul style="list-style-type: none"> Inconsistent delivery of material Industry cooperation Local school support 	
<p>Issue: Engagement</p> <p>Solution 6</p> <p>Utilize existing</p>	<ul style="list-style-type: none"> Increase/enforce standards for teachers/programs/curricula for automotive studies 	<ul style="list-style-type: none"> AYES NEA Dept. of Education (federal/state) School boards 	<ul style="list-style-type: none"> Funding (federal, state, local, dealer assoc) Time for cross-functional project team to develop standards 	<ul style="list-style-type: none"> Cost Objections of teachers unions State Departments of 	

<p>resources: automakers, Automotive Retailing Today, Automotive Youth Educational Systems, National Automotive Technicians Education Foundation, Automotive Service Excellence, the U.S. Military, Association for Career and Technical Education, National Education Association. Avoid unnecessary duplication.</p> <p>Overall Solution 6</p>	<ul style="list-style-type: none"> ▪ Develop teacher education programs to expose/educate teachers (via in-service) to value/academic requirements of auto careers 	<ul style="list-style-type: none"> ▪ ASE ▪ Teachers union ▪ Skills USA ▪ Department of Labor ▪ National Automobile Dealers Association ▪ School counselors/teachers 	<ul style="list-style-type: none"> ▪ Equipment ▪ Communication materials, incorporating applied academics theory 	<p>Education cooperation</p>	
<p>Issue: Identifying Champions of the Industry</p> <p>Solution 7</p> <p>Local campaign using organizations/individuals. Positive public image that is a not typical car person. Perhaps</p>	<ul style="list-style-type: none"> ▪ Identify all stakeholders public & private ▪ Assign responsibilities ▪ Identify all target audiences ▪ Develop process & criteria to select spokesperson: Local market appreciation; Respected; Target audiences will identify with this person. ▪ Clearly establish the local strategy and 	<ul style="list-style-type: none"> ▪ OEM's ▪ Dealer organizations ▪ Community colleges ▪ Tech colleges ▪ Federal workforce systems ▪ High School system ▪ Independent Service Providers ▪ State Dept. of Labor & Education ▪ Armed Services ▪ Economic and Community Development Committees ▪ Career and Technical 	<ul style="list-style-type: none"> ▪ Car Dealers ▪ College Presidents ▪ State Governors ▪ School Superintendents (state & local) ▪ Mayors & County executives ▪ Local personalities ▪ Athletes ▪ Movie Stars ▪ Car racing figures ▪ TV/Radio/Sports ▪ Business Leaders ▪ Financial: cash and in-kind 		

<p>well known politician (could vary by state or region) who highlights the good pay, good work conditions, positive economic impact of industry.</p>	<p>align with national strategy: Define problem; Mission/objectives; Implementation steps; Timeline; Complete business plan</p>	<p>Student Organizations</p>			
<p>Overall Solution 7</p>					
<p>Issue/Challenge : Diversity of the Workforce</p> <p>Issue: Targeting Minority Populations</p> <p>Solution 1</p> <p>Identify a national minority (image) for the automotive industry</p> <p>Overall Solution 8</p>	<ul style="list-style-type: none"> ▪ Create a focus group of young minorities to identify a spokesperson they could relate to. (animated Hummer, SpongeBob) ▪ Various characters representing cultural, learning characteristics ▪ Involve future technology, environmental issues, safety, automotive vocabulary ▪ Theme song (Barnie's song) ▪ Career Awareness visits by SpongeBob or Barnie or other characters 	<ul style="list-style-type: none"> ▪ Animation Industry ▪ Youth Groups ▪ Original Equipment Manufacturers' (Advertising agencies) ▪ AYES ▪ Educators ▪ Cable industry ▪ PBS ▪ Discovery, Learning Channel, History channel 	<ul style="list-style-type: none"> ▪ DOL \$ ▪ Manufacturer's technical expertise ▪ AYES staff ▪ Cable industry ▪ PBS ▪ Discovery, Learning Channel, History channel 	<ul style="list-style-type: none"> ▪ Department of Labor money 	

	<ul style="list-style-type: none"> Comic books/games (Playstation) 				
<p>Issue: Targeting Minority Populations</p> <p>Solution 2</p> <p>Establish a scout troop sponsorship initiative and/or an auto technician merit badge or expanded soap box derby</p> <p>Overall Solution 9</p>	<ul style="list-style-type: none"> Create Awareness Involve local dealers/industry representation Connect local Business & Economic councils with local scout groups 	<ul style="list-style-type: none"> National Awareness – AYES Local Business & Economic Councils Local scout groups National Scouts 	<ul style="list-style-type: none"> Department of Labor money for awareness 		
<p>Issue: Targeting Minority Populations</p> <p>Solution 3</p> <p>Provide scholarships to minority organizations such as NAACP, Hispanic Chamber of Commerce, etc. to focus on unique populations</p> <p>Overall Solution 10</p>	<ul style="list-style-type: none"> Survey scholarship opportunities \$ Funnel effort through AYES 	<ul style="list-style-type: none"> WIA (Nationally & locally) AYES 	<ul style="list-style-type: none"> Foundations (Public & Private) WIA \$ 		

<p>Issue: Targeting Minority Populations</p> <p>Solution 4</p> <p>Begin early-linking automotive technology to math and science, reading-English curricula in a familiar and engaging environment and set short-term goals. Be sure to focus on textbooks to provide a rigorous academic standard for automotive tech applications</p> <p>Overall Solution 11</p>	<ul style="list-style-type: none"> ▪ Change “Mold” of how math and science teachers are taught “how to teach” to use more contextual learning ▪ Influence math and reading science textbooks and curriculum design ▪ Provide externships for academic teachers ▪ Attract automotive people to re-enter education as academic teachers 	<ul style="list-style-type: none"> ▪ Department of Education (FED, State and Local) ▪ Department of Labor ▪ Textbook publishers ▪ Local industry reps. 	<ul style="list-style-type: none"> ▪ Department of Labor money ▪ Department of Education money ▪ Curriculum Designers with technical expertise 	<ul style="list-style-type: none"> ▪ Resistance to change 	
<p>Issue: Targeting Young Women</p> <p>Solution 5</p> <p>Establish incentives and education programs to promote</p>	<ul style="list-style-type: none"> ▪ Scholarships and educational programs (technical) ▪ Highlight emerging skill sets that women possess that meet current automotive service requirements as 	<ul style="list-style-type: none"> ▪ Industry and Educators ▪ Institution counselors ▪ WEB based learning programs/institutions ▪ MEDIA/Industry leaders 	<ul style="list-style-type: none"> ▪ \$/ Counselor program managers ▪ Human ▪ None 	<ul style="list-style-type: none"> ▪ Image ▪ Identifying those skills ▪ Image of the Industry 	

<p>hiring of women</p> <p>Overall Solution 12</p>	<p>opposed to older physically demanding repair tasks</p> <ul style="list-style-type: none"> ▪ Not a “Dirty Job” connotations annotations destroyed as a term referring to Automotive Repair Industry 				
<p>Issue: Targeting Young Women</p> <p>Solution 6</p> <p>Establish links between women’s shelters and other programs to local automotive tech programs</p> <p>Overall Solution 13</p>	<ul style="list-style-type: none"> ▪ Women at shelter locations being exposed to opportunity in auto service industry 	<ul style="list-style-type: none"> ▪ Shelter managers ▪ State and federal program managers ▪ Local automotive trainers/institutions 	<ul style="list-style-type: none"> ▪ Money ▪ Counselors ▪ Quality Tech Training 	<ul style="list-style-type: none"> ▪ Transportation ▪ Child Care ▪ Subsistence Resources ▪ Housing 	
<p>Issue: Targeting Young Women</p> <p>Solution 7</p> <p>Develop media career ladder focus (brochure/website/media campaign)</p> <p>Overall Solution 14</p>	<ul style="list-style-type: none"> ▪ Legitimate example of a successful example of an automotive career ▪ Breaking old stereotypes 	<ul style="list-style-type: none"> ▪ Original Equipment Manufacturers ▪ National Automobile Dealers Association ▪ Automotive-oriented institutions ▪ Department of Labor ▪ Department of Education ▪ Automotive Service Excellence (ASE) ▪ Industry leaders/management 	<ul style="list-style-type: none"> ▪ Money ▪ Attitude/Enforcement 	<ul style="list-style-type: none"> ▪ Interest in program ▪ Hostile work environment (sexual harassment) 	

<p>Issue: Translating the Automotive Technician's Certification Exam</p> <p>Solution 8</p> <p>Integration of vocational awareness & skills into Early Grades</p> <p>Overall Solution 15</p>	<ul style="list-style-type: none"> ▪ Teacher awareness reformation ▪ Using Tech as awareness issue – updated curricula ▪ Early assessment process ▪ Standards for textbooks 	<ul style="list-style-type: none"> ▪ Board of Education ▪ Text Book Makers & Curriculum providers ▪ Parental Involvement 	<ul style="list-style-type: none"> ▪ Departments of Education (Fed & States, local) ▪ Subject Matter Experts (SME) ▪ Industry 	<ul style="list-style-type: none"> ▪ Non-commitment ▪ Parental understanding & assistance 	
<p>Issue: Translating the Automotive Technician's Certification Exam</p> <p>Solution 9</p> <p>Promote use of online availability of curricula & online testing</p> <p>Overall Solution 16</p>	<ul style="list-style-type: none"> ▪ Web-based initiative ▪ Access to computers ▪ Posters in shops, dealerships ▪ Brochures in shops, dealerships ▪ Curricula multilingual ▪ Links with partner sites 	<ul style="list-style-type: none"> ▪ Employers ▪ Partners – Info. Tech ▪ Dept. of Education ▪ Unions ▪ Military ▪ K-12 AYES 	<ul style="list-style-type: none"> ▪ Partnership money (Auto industry, Department of Labor, etc.) 	<ul style="list-style-type: none"> ▪ Lack of funding ▪ Who's lead partner? (Industry, Government, Education) 	
<p>Issue: Translating the Automotive Technician's Certification Exam</p> <p>Solution 10</p> <p>Fund Release Time and Scholarships to minority techs to become certified Instructors</p>	<ul style="list-style-type: none"> ▪ Tax incentive credits ▪ Resources for teachers to become ASE certified ▪ Bilingual instruction to teach techs ▪ Agreement on an accepted standard for competence ▪ Train the Trainer 	<ul style="list-style-type: none"> ▪ Dept. of Education ▪ Industry Scholarship matching from partners ▪ Foundations ▪ Community colleges ▪ National organizations representing minorities ▪ Industry Association 	<ul style="list-style-type: none"> ▪ Money – state & federal ▪ Matching funds from partners ▪ Education Foundation ▪ Legislation ▪ Need a lead partner 	<ul style="list-style-type: none"> ▪ Accountability ▪ Support ▪ Lack of public awareness/empathy for issue ▪ Do not have a lead partner 	

Overall Solution 17	curriculum				
Issue/Challenge : Capacity and Instruction					
<p>Issue: Promote the Importance of Industry-Certified Training Programs</p> <p>Solution 1</p> <p>Fund programs in increments to incentivize certification to states/local school districts.</p> <p>Overall Solution 17</p>	<ul style="list-style-type: none"> ▪ funding (start-up, roll-out, steady state) ▪ total commitment of industry and public education system ▪ a system; can't be defined by this group, but group recommends strongly that it be a committee of industry and education experts ▪ strategic business plan 	<ul style="list-style-type: none"> ▪ industry: <ul style="list-style-type: none"> ▪ manufacturers ▪ dealers ▪ master teachers ▪ state education depts. ▪ Education (local) ▪ US Department of Labor <ul style="list-style-type: none"> ▪ WIBs ▪ Local public workforce system ▪ Industry trade associations 	<ul style="list-style-type: none"> ▪ Leverage stakeholders' financial resources ▪ Corporate + foundation funds ▪ BRG funds for solution development. ▪ Fed funds for start-up, then steady state tuition funds for on-going operation ▪ Human resources representation from Education , Industry, and Labor stakeholders ▪ Partnership with Manufacturers' and other training programs such as CAP, T-TEN, AYES schools consultants ▪ Industry for technical resources 	<ul style="list-style-type: none"> ▪ Current funding policy ▪ Trend of education funding is not technical, it is more educational ▪ Logistics (in major metro area, tough getting from one place to other) ▪ Training duration 	
<p>Issue: Promote the Importance of Industry-Certified Training Programs</p> <p>Solution 2</p> <p>Create a plan for the</p>	<ul style="list-style-type: none"> ▪ Implementation plan has clear measurements. ▪ Implementation plan reward upon completion only ▪ Improve school's education process and 	<ul style="list-style-type: none"> ▪ State ▪ Schools ▪ Students ▪ Teachers ▪ ASE ▪ NATEF 	<ul style="list-style-type: none"> ▪ Federal ▪ National Gov ▪ State ▪ Local Dealer ▪ ASE ▪ NATEF 	<ul style="list-style-type: none"> ▪ Education Community ▪ Legislators 	

<p>implementation of certification & reward money for each step achieved on an annualized basis</p> <p>Overall Solution 18</p>	<p>student success rate</p>				
<p>Issue: Promote the Importance of Industry-Certified Training Programs</p> <p>Solution 3</p> <p>At the post-secondary level state funding/workforce funding tied to industry requirements</p> <p>Overall Solution 19</p>	<ul style="list-style-type: none"> ▪ Tied to federal legislation ▪ Consistency state to state 	<ul style="list-style-type: none"> ▪ Private Schools ▪ Votech Schools ▪ State Colleges 	<ul style="list-style-type: none"> ▪ Federal ▪ National Government ▪ State ▪ Local Dealer Community 	<ul style="list-style-type: none"> ▪ 50 States 	
<p>Issue: Promote the Importance of Industry-Certified Training Programs</p> <p>Solution 4</p> <p>National legislation that ties Perkins funding to industry certification</p>	<ul style="list-style-type: none"> ▪ Dollars to support the legislation have been identified ▪ A standardized delivery system ▪ Increased accountability ▪ Standardize success measurement ▪ Department of Labor 	<ul style="list-style-type: none"> ▪ Retail customers ▪ Original equipment manufacturers ▪ Population 	<ul style="list-style-type: none"> ▪ Lobbyist ▪ Manufacturers ▪ White Papers 	<ul style="list-style-type: none"> ▪ Department of Education 	

<p>Overall Solution 20</p>					
<p>Issue: Recruit more industry certified instructors</p> <p>Solution 5</p> <p>Increase compensation and incentives to instructors to a level high enough to attract and retain quality instructors</p> <p>Overall Solution 21</p>	<ul style="list-style-type: none"> ▪ Money – problem gets fixed with appropriate funds dedicated to compensating instructors beyond their base salary level. (not necessarily financial compensation) ▪ Building a reward system that recognizes the great work done by instructors ▪ A % of labor to develop a fund that supports education (an educational support fund) 	<ul style="list-style-type: none"> ▪ Industry ▪ Educators ▪ Dealer principals ▪ Independent shop owners ▪ Students ▪ Anyone who would acquire some one who has been trained by them ▪ WIBs 	<ul style="list-style-type: none"> ▪ Using the construction industry model – a training fund established to support training – related activities, with specific guidelines for use. ▪ BRG funds for development oversight board to fairly allocate resources within the industry ▪ Technical resources - ? ▪ It depends 	<ul style="list-style-type: none"> ▪ Unknown; would need to check with key associations. Examine hog farmers’ industry; check legal issues; may be prohibitive legal barriers 	<ul style="list-style-type: none"> ▪
<p>Issue: Recruit more</p>	<ul style="list-style-type: none"> ▪ Has to be 	<ul style="list-style-type: none"> ▪ The trade press 	<ul style="list-style-type: none"> ▪ US Dept of Labor 	<ul style="list-style-type: none"> ▪ Unknown; 	

<p>industry certified instructors</p> <p>Solution 6</p> <p>Create incentives for working technicians to transition into education with monetary rewards. Utilize trade press & professional organizations to run ads and spots to promote opportunities and value to becoming an instructor</p> <p>Overall Solution 22</p>	<p>communicated to technicians in the industry (and remember: What gets rewarded, gets done)</p> <ul style="list-style-type: none"> ▪ Marketing, outreach and promotional campaigns ▪ Need buy-in from repair shop owners ▪ Need the best so that the best can be replicated 	<ul style="list-style-type: none"> ▪ Trade associations ▪ The outlets for sales ▪ Industry ▪ Education ▪ US Dept of Labor ▪ WIBs 	<p>funding</p> <ul style="list-style-type: none"> ▪ In-kind donations of ad space ▪ Leverage stakeholder financial resources ▪ Fed funds for steady state, supplemented by stakeholder funds. ▪ BRG funds for solution development 	<p>would need to investigate; e.g. use of Education money for this kind of activity that came from public sector funding</p>	
<p>Issue: Address the disconnect between education funding and industry standards</p> <p>Solution 7</p> <p>Federally mandate industry certification for all career and technology programs that benefit from Perkins dollars</p> <p>Overall Solution 23</p>	<ul style="list-style-type: none"> ▪ Legislative approval for funding ▪ Maintain current level of funding 	<ul style="list-style-type: none"> ▪ Dept of Labor ▪ Dept of Education ▪ Industry ▪ Industry Associations ▪ Military 	<ul style="list-style-type: none"> ▪ CEO of Industry to lobby Congress 	<ul style="list-style-type: none"> ▪ Federal Department of Education cannot control state allocations 	

<p>Issue: Address the disconnect between education funding and industry standards</p> <p>Solution 8</p> <p>Develop clear measurements of intended and acceptable outcome, (define industry standards), communicate industry measurements, then decide what to do</p> <p>Overall Solution 24</p>	<ul style="list-style-type: none"> ▪ Have Industry Devine standards ▪ Industry Communication to education through American Association of Community Colleges, and industry-specific/ education-specific associations 	<ul style="list-style-type: none"> ▪ Industry heads ▪ Dept of labor ▪ Labor Unions 	<ul style="list-style-type: none"> ▪ Industry provides needed requirements 	<ul style="list-style-type: none"> ▪ Industry proponents 	
<p>Issue: Address the disconnect between education funding and industry standards</p> <p>Solution 9</p> <p>Require NATEF certification as pre-qualification for all education and training dollars</p> <p>Overall Solution 25</p>	<ul style="list-style-type: none"> ▪ Legislative approval for funding 	<ul style="list-style-type: none"> ▪ Dept of Labor ▪ Dept of Education ▪ Industry/Industry associations 	<ul style="list-style-type: none"> ▪ CEOs of industry to lobby state level ▪ Go state to state 	<ul style="list-style-type: none"> ▪ Teachers Unions ▪ Labor Unions ▪ State Departments of Education 	
<p>Issue: Establish instructor training for instructors of apprenticeships</p>	<ul style="list-style-type: none"> ▪ Portability ▪ Entry-level skills certification that serves as a foundation for 	<ul style="list-style-type: none"> ▪ Credentialing organizations ▪ Auto manufacturers ▪ Independent service & 	<ul style="list-style-type: none"> ▪ Intellectual property of the stakeholders ▪ Centralized 	<ul style="list-style-type: none"> ▪ Unions ▪ Individual businesses ▪ Existing 	

<p>Solution 10</p> <p>Develop curriculum that would have to be embraced by industry as well as the public education system</p> <p>Overall Solution 26</p>	<p>career advancement</p> <ul style="list-style-type: none"> ▪ Public acceptance ▪ Industry acceptance ▪ Training and compensation aligned with credential or license ▪ Repeatability – retesting required to keep credential/license ▪ Continuing education 	<p>body shops</p> <ul style="list-style-type: none"> ▪ Training providers ▪ Auto dealerships ▪ Department of Labor – US, state, and local ▪ Military ▪ Department of Education ▪ Auto dealer association 	<p>database to provide necessary information</p> <ul style="list-style-type: none"> ▪ Staff at Department of Labor, Dept. of Education, Environmental Protection Agency; Department of Transportation ▪ Stakeholder representatives at oversight/board ▪ Workforce Investment Act 	<p>workers</p> <ul style="list-style-type: none"> ▪ Impact on training providers that do not achieve certification ▪ State’s rights v. national program 	
<p>Issue/Challenge : Training and Education</p>					
<p>Issue: Establish universally recognized credentialing or licensing system for service technicians at all levels of the career ladder</p> <p>Solution 1</p> <p>Establish a policy board of stakeholder representatives whose mission is to identify and administer a credential/licensing structure. The board will maintain a</p>	<ul style="list-style-type: none"> ▪ Portability ▪ Entry-level skills certification that serves as a foundation for career advancement ▪ Public acceptance ▪ Industry acceptance ▪ Training and compensation aligned with credential or license ▪ Repeatability – retesting required to keep credential/license ▪ Continuing education 	<ul style="list-style-type: none"> ▪ Credentialing organizations ▪ Auto manufacturers ▪ Independent service & body shops ▪ Training providers ▪ Auto dealerships ▪ Department of Labor – US, state, and local ▪ Military ▪ Department of Education ▪ Auto dealer association 	<ul style="list-style-type: none"> ▪ Intellectual property of the stakeholders ▪ Centralized database to provide necessary information ▪ Staff at Department of Labor, Dept. of Education, Environmental Protection Agency; Department of Transportation ▪ Stakeholder representatives at oversight/board ▪ Workforce Investment Act 	<ul style="list-style-type: none"> ▪ Unions ▪ Individual businesses ▪ Existing workers ▪ Impact on training providers that do not achieve certification ▪ State’s rights v. national program 	<ul style="list-style-type: none"> ▪ Lack of consistency of standards within industry

<p>centralized database, define training requirements to achieve credentials and establish certification criteria for training providers. The Department of Labor will staff the policy board</p>					
<p>Overall Solution 27</p>					
<p>Issue: Develop a uniform education and training program for entry level workers</p> <p>Solution 2</p> <p>National model for training entry level employees for the automotive industry based on standards and benchmarks that are universally accepted. Model should address both academic and technical standards and be based on a developmental continuum moving from elementary school through</p>	<ul style="list-style-type: none"> ▪ Focus on entry level employees ▪ Standards & benchmarks <ul style="list-style-type: none"> ✓ In curriculum (minimum to meet Automotive Service Excellence ASE) standards ✓ In outcome assessment (ASE) ✓ In facilities and equipment (National Automotive Technician Education Foundation - NATEF) ▪ Developmental continuum (Automotive Youth Educational 	<ul style="list-style-type: none"> ▪ Department of Labor ▪ Department of Education ▪ All Manufacturers/Suppliers ▪ Auto Retail Industry ▪ Auto Associations ▪ NATEF/ASE ▪ AYES 	<ul style="list-style-type: none"> ▪ Research and Development for curriculum framework ▪ Endorsement from all national stakeholders ▪ Cost of developing an assessment tool for program success ▪ Resources to develop materials certifying symbols and processes ▪ Establish a certifying agency 	<ul style="list-style-type: none"> ▪ Coordination of multiple agencies and associations involved 	

<p>post secondary education. This continuum of progress should be managed by an industry council connected with local workforce investment board</p> <p>Overall Solution 28</p>	<p>System - AYES) beginning in elementary schools and middle schools and leading through 14 years of formal education and training.</p> <ul style="list-style-type: none"> ▪ Articulation agreements between all major entities – i.e. elem., middle, high schools and community colleges, post secondary ▪ Industry participation and leadership (i.e. Industry Council) ▪ Direct connection with the regional and state WIBs 				
<p>Issue: Establish industry standards for training and training programs</p> <p>Solution 3</p> <p>Recognize the National Automotive Technicians Education Foundation as industry standard-setting entity/ Mandate NATEF certification for training programs.</p> <p>Overall Solution 29</p>	<ul style="list-style-type: none"> ▪ Outreach to industry -- benefits of standards ▪ Awareness that they <u>are</u> industry set standards ▪ Connect NATEF to safety issues ▪ Provides transition to upward career mobility thru pathways from secondary → post secondary → update 	<ul style="list-style-type: none"> ▪ State Directors ▪ Trade & Industrial Supervisors ▪ Local Administrators ▪ Principals ▪ Instructors ▪ Automotive Trade Association Executive (ATAE) ▪ Automotive Service Association, national & state level (ASA) ▪ Workforce Development Boards ▪ Local Dealers ▪ Local Independent shop owners ▪ Community College Associations 	<ul style="list-style-type: none"> ▪ Perkins funding (federal) & state funding, local ▪ Manufacturers ▪ Local employers ▪ Other federal funding – Workforce Investment Act, Department of Labor, welfare reform, Department of Education ▪ Training dollars tied to Industry-certified programs ▪ Technical assistance ▪ Standards to program 	<ul style="list-style-type: none"> ▪ State legislative & financial support ▪ Lobbying support ▪ Opposition lobby against technical careers ▪ Access 	

253 Solutions Generated at the Automotive Industry Workforce Development Forums

Image and Promotion Solutions

Identifying an Industry Champion

1. Organizations/individuals with positive public image that are not typical car person. Perhaps well known politician (could vary by state or region) who highlights the good pay, good work conditions, positive economic impact of industry.
2. National campaign identifying an individual/organization
Hire marketing firm to identify...
 - Target audience
 - Most respected
 - Most meaningful champion matched to target audience
 - Best media channel to reach audience
 - Ask SkillsUSA to conduct the marketing analysis
3. Military success stories.
4. Parent/child work team.
5. Not able athletes from parents era: i.e., Johnny Bench.
6. WIBs for industry promotion.
7. Education spokespeople, i.e., school boards.
8. Raise the bar for educators of automotive technology
 - Training Requirements
 - Certification Levels
9. Promote some self-made successful industry leaders to reflect entrepreneurship within each occupation.
10. Aerospace spokespeople.
11. Patriotic figures: i.e., Jessica Lynch.
12. Local employers with jobs .
13. Young female race car drivers.
14. National license campaign for service technicians
 - Today each state has their requirements and they are not very well publicized
 - Not enough visibility
15. Local employees with job of varying ages per job type.
16. National model campaign geared toward parents.
17. Spokesperson and experience in varying occupations within automotive.
18. Mentoring shop foreman.
19. School counselor and successful student/tech.
20. Younger students
 - Engage a musician/actor and/or NASCAR driver
21. Create a spokesperson within communications campaign, i.e., Smokey the Bear, Mr.Goodwrench.
22. Teachers that have a fundamental understanding of the “service industry” and the skills required.
23. Statewide campaign celebrating success – i.e., such as the young woman who spoke this morning – publish in Chamber news – press release, etc.

24. Local model/campaign geared towards educators.
25. Peer success.
26. Utilize SkillsUSA's TeamUSA as "poster children."
27. Use former students of schools who have gone on to excel in the automotive field.
28. Military enlistees returning to the civilian sector who are putting their technical skills to practice in the automotive field.

Delivering of the Image and Promotion Message

29. Targeted interviews in national media and key messages to targeted audience.
30. Career success stories
 - Within tech side and/or
 - Career voyages ex. wash boy to government affairs leader
31. Printed materials
 - Through dealership service department
 - In schools and counselor office
32. Television and video
 - Channel one
 - NOPI-TV
 - MTV
33. Dealership service department.
34. Career video in OEKI product stuff.
35. Conduct a nationwide campaign to increase the prestige and value of the "trades" (Army of One)
 - Patriotism 9/11 – police, firefighters, emergency services
 - Car nation was built...
 - The Greatest Generation
 - High-tech
 - Meaningful
 - Good pay
 - Profession
 - Credentials
 - Industry effort "Drink Milk," "The Other White Meat"
 - Phase-in over year
36. PSA on popular radio stations during high listener times.
37. Nationwide media campaign on a regular basis during prime-time viewing hours.
38. Public service TV with a focus on the target groups:
 - For students – MTV, etc.
 - For parents – major networks and sports events
 - For educators – History Channel and Discovery Channel as well as PBS
39. Network (i.e., ABC, NBC, CBS, Fox, HBO, etc.).
40. Capitalize on "Garage" type theme.
41. Younger audience – internet game/video game that is "cool" and engages person in challenge with repairing vehicle or engine. Could include scholarships for "site visitors," guaranteed interviews, other rewards to encourage volume visits to site.
42. Target key audiences with 5 key messages
 - Career ladder

- Benefits: health, retirement
- Safe environment
- Real good wages
- Mobility and stable employment

Deliver these messages to parents and educators in particular.

43. Industry promotion.
44. Dealer promotion.
45. Technician promotion.
46. Hot Jobs, Monster.com to feature “skilled trade jobs.”
47. High technology delivery focused on the target:
 - Kids:
 - Internet
 - Video game
 - Parents:
 - News programs
 - “60 minutes”
 - PBS
 - Counselors:
 - Trade publications
46. Disability program navigators – 100 nationwide today
 - Teach them the core competencies
 - Explore the types of disabilities that could feasibly succeed (i.e., legally blind vs. totally blind)
 - Research productivity impact of various disabilities
48. Career lattices. Community colleges and adult vocational education programs offer wealth of access and opportunities for people who are 20-50 age range and are in a position to change career path – great opportunity to develop stronger outreach to adult learners.
49. National teachers conferences presentations.
50. Print materials and DVDs used in high schools and junior high schools, keying students to important websites.
51. Immigrants. Focus on personal economic potential
 - Adult basic educators
 - Magazine directed to these populations
 - TV commercials on specific programs
 - Organizations representing these populations
52. Close collaboration between Military and Guard and colleges. Around transferable skills between Military and civilian workforce.
53. “How big is it?” Show the opportunity, number of jobs, job security, ever changing/developing.
54. “Billboards” – signage in schools/at sports events.
55. Umbrella campaign embraced by partners in and out of industry.
56. Find an appropriate advertiser like ASE did with Carquest who will give one 60 second ad in each big sports event to run a PSA like ad about this career in auto industry.
57. College career fairs career day/county fair booths.
58. Younger people. Focus on value to society, individual choice
 - Put on MTV, internet
 - Ad Council

- Blogs
59. “The Apprentice” type reality show for skills trades. Identify the Donald Trump of the skills industry.
 60. Put together a strategic plan to go out school by school and sell the career opportunities to counselors and administrators with follow up to get engaged in career day and/or parent events...a focused industry-wide approach with real statistics instead of random as it is now.
 61. Radio or TV time – as public service announcement focused on career opportunities for young people – not on helping auto industry.
 62. Position automotive as a college preparatory curriculum in secondary to go to post-secondary at community colleges.
 63. National campaign. Print out ads that show the “fun” aspects of job, outline benefits/pay, and touch on a sense of patriotism (e.g., “contributing to growth of our economy” or “helping America to keep driving”).

How to engage the influential stakeholders

64. “What’s cool” campaign – rewards and benefits of technical careers.
65. Invite counselors, administrators, etc., to dealership for dinner (lunch) to discuss the opportunity for careers (not jobs). “Meeting in a box” approach
 - Food
 - Meeting content
 - Message
66. Local TV/radio/news discussions on nature of regional job/industry market.
67. Open houses/career day at manufacturers education centers
 - Invite parents, counselors, teachers, school board members
 - They see cars, technology, and diagnostic equipment
68. Umbrella campaign. Utilize resources that are existing
 - Automakers
 - ART
 - AYE
 - NATEF, ASE
 - Military ACTE
69. Expose next generation of teachers (i.e., math, science, English) to service industry and some of the skills necessary in the “Service Industry.”
70. If Jack Smith’s speech to NADA woke up the dealers, let OEM presidents speak to counselors’ associations, PTA national group – “wake up and realize the opportunity of 2+2.”
71. Parents education days.
72. Career opportunities information statistics that is readily available to interested people.
73. Dealer briefings for new car purchasers about career opportunities in dealerships
 - One-on-one
 - DVDs
74. Develop educational campaign targeted to parent/teacher associations to promote positive aspects of auto repair career.
75. Program is developed “in a box” and delivered by local, reputable car dealers/service managers.

76. National effort by the manufacturers and the automotive training sector to educate parents, counselors, teachers, etc., through professionally conducted open-house functions at dealer stores.
77. Parent to parent “sessions.” Parent to guidance counselors.
78. Industry (corporate) invitation to attend seminars/training/manufacturing facilities
 - Identify target populations
 - HS shop class
 - Test results (?)
 - Demographics
 - “Wine and dine” them and parent
 - Stress career
 - Continuing education
 - Scholarships – self and family
 - Army “outreach”
79. Dealer participation in school “career days” to focus on the math/science/technology relationship to servicing cars and trucks.
80. Target entire school with special programs like U.S. Army YES program, instead of just the CTE classes. Invite parents.
81. Partnership of manufacturers and automotive training providers to have a presence in high-traffic areas, malls, sporting events, etc., to discuss the opportunities available in the automotive technology field.
82. Targeted training resources in direct response to Business demands, i.e., what do the Daimler/Chrysler, GM, VW organizations need in my community? Advertise training as such.
83. Education community need to have an understanding of options available to our youth
 - Get away from the “college bound” mentality.
84. Community college counseling centers and one-stop centers partner as the definitive local delivery center for career education at all levels (age).
85. Provide a clear explanation of the curriculum requirement and how it crosses and covers other than technical.
86. “Career pack” of info and multi-media messages for counselors and teachers and job centers.
87. High level academics promoting to teachers/counselors and superior program leaders from star schools.
88. Establish an annual trip (Hawaii, Caribbean) to recognize school systems that feed the most students each year into AYES sponsored educational programs/institutions.

Diversity Solutions

Targeting Minority Populations

89. Begin early linking automotive technology and math and science curriculum in a familiar and engaging environment or setting short-term goals. Be sure to also focus on textbooks to focus on rigorous academic standards in automotive technology applications.
90. Create some kids toy ensemble for early engagement, AKA, “Bob the Builder.”
91. Utilize industry reps to outreach in other community resources and establish measurable goals.
92. Establish a scout troop sponsorship or merit badge, i.e., expand soap box derby.

93. Partnering with stakeholders for funding initiatives.
94. Identify causes for under representation of minority groups such as survey, etc.
95. Establish externships for educators.
96. Scholarships to minority organizations, HCOC, NAACP, etc., to target their targeted populations.
97. Provide careers education in multi-lingual format to also target parents.
98. Connect dots between auto industry initiatives to training and employment.
99. Expand apprenticeship activities to include persons within these groups who have been successful.
100. Utilize existing federally funded and CBO programs who target minority populations, i.e., Job Corps. Add and emphasize accountability.
101. National media campaign to focus on women and minorities.
102. Highlight role models with “familiar” like faces. Be sure to start early – 4-5 grade.
103. Unique programs such as a Summer Youth Camp.
104. Conduct minority outreach programs for career enhancement and training.
105. Increase funding to pilot European model where kids are in paid internships within industry.
106. Fund a study to define and discover barriers to inclusion of these groups into the workforce.
107. Assess immigrants for skills to perform these jobs.
108. Diverse awareness brochure to stress pay scale, benefits, and like style opportunities.
109. Target influential individuals who interact with these populations.
110. Establish new and support existing inner-city programs.
111. Utilize contextual learning across the curricula.
112. Utilize entrepreneurs to target minorities.
113. BET to sponsor a NASCAR team.
114. National minority spokesperson.
115. Be sure to include incumbent workers.
116. Mobilize current techs to speak to targeted populations.
117. Don’t focus solely on k-14.
118. Target military enrollees and those who exit the service for automotive technician training.

Targeting Young Women

119. Define skills women already possess, i.e., design, etc., IT.
120. Brochure with career ladder information for females.
121. Specific gender products “Barbie’s toybox” – partner with marketers.
122. Links from women’s shelters to local automotive programs.
123. Gender equity education for technicians.
124. Promote clean environment of shop.
125. Line of color overalls that fit women comfortably.
126. Career guidance counselors to focus on women.
127. Partnerships with educators to host clinics to expose them to an auto environment.
128. Focus on programs only available to women, who only hire women, (especially women service manager groups, young dealers, shop owners, etc.)
129. Change language from apprenticeship to internship.
130. Dealer education about hiring women and incentive to dealers for hiring women.

131. Target elderly women to dispel stereotypes.
132. Ask car manufacturers to sponsor all male/all female role.
133. ID career ladder with multiple careers = someone who's done it.
134. Recruit from military to civilian sector.

Translating certification exams to identify qualified technicians with limited English proficiency

135. Any certification recognized and translated assoc. to auto services (not only ASE)
136. Better application of software to make information more accessible.
137. Expand edu. to improving economic conditions.
138. Service information, tools, manuals, and equipment translated.
139. Diverse input on development of test including language variants.
140. Provide linguistically matched readers.
141. Fund release time and scholarships on techs to become certified instructors.
142. Assess auto test to include all certified areas.
143. Feds use pre-assessment to assess immigrants as they enter United States.
144. Add on-line availability of curricula and on-line testing.
145. Integration of vocational and early grades.
146. Identify and target populations with limited English.
147. Fund start-up of a limited number of translations other than Spanish.
148. Develop database of training resources to further develop incumbent workers.
149. Industry supported glossary of preferred industry terms for Spanish.
150. Teach English-speaking instructors other language terms for needed items.
151. On-line ESL for these targeted to industry.
152. Incentive for instructors who learn and can teach in a second language.

Capacity and Instruction Solutions

153. Create financial incentives for attending non-technically-based professional development courses, including fee waivers, travel and lodging expenses (if applicable).
154. Improve incentives by:
 - Partnering with industry for job opportunities during summer/slack times.
 - Developing a more formed structure of qualification recognition of instructors (certified/non-certified).
155. Eliminate the need for instructors.
156. Separate the cognitive learning from skills development.
157. Knowledge base learning done in an online, web-based, interactive environment.
158. Hands-on skills development developed in a one-on-one environment with someone with lower level mentoring/facilitating skills.
159. Extend instructors' contract to include time to return back in industry and training to keep current possibly offset by financial support by the business community.
160. Educate the academic community about why teaching in the automotive genre is a good idea (and rewarding).
161. Award teacher/educator credits for automotive service excellence certifications (mentor and technician).
162. Design, develop, implement a certification track that starts with tech certification ASE and ends with tech certified training/instructor.

163. Target by letter/phone contact ASE certified individuals who have demonstrated performance and professional excellence.
164. Model tech certification to Microsoft, Cisco....
165. At colleges, change the job title of technicians from faculty to professional staff/training level resulting in a 12 month position.
166. Increase pool of applicants by:
 - More formal partnerships with military through “returning to civilian life” after military service is completed.
 - Increasing student pool which eventually increases instructor pool. More info on job opportunity available to high school students.
167. Develop industry sponsored instructors that train other instructors.
168. Set up Instructor Apprenticeship Program.
169. Establish a National Education Certification Curricula.
170. Require ASE certification as a requirement for application of employee.
171. Sponsor industry training sessions that focus on teaching skills, managing young people and professional skills for instructors.
172. Document and duplicate local/state success stories for development of a national model.
173. Recruit judges to classroom. Another avenue for recruitment is at student auto competitions – local, district, state, and national. Thousands of judges come as volunteers to evaluate students work and become “engaged” with the students. Many of these people love the interaction with students, and they are some of the best technicians. At national Skills USA competition alone, over 150 judges volunteer annually.
174. Establish (apprenticeship) instructor training for instructors.
175. Increase compensation to instructors to a level high enough to attract and retain quality instructors...1% surcharge on labor.
176. Design specific programs with incentives packages in salaries, development, and certifications.
177. Maintain a national directory of certified instructors recognized in the industry database.
178. Increase pay – relate pay scale to their certification.
179. More incentives for more education and pay increase for more certification.
180. Cash incentive at instructor recruitment funded by Dealer Associations, manufacturer, local dealers, and others. Bonus as each level of ASE certification is achieved. Bonus at recertification. This does not affect base salary which may be set by contract or unions, but encourages retention.
181. Industry supplements instructors compensation or “rewards” instructor for performance and reaching certain goals.
182. Incentive current working technicians to transition into education with monetary rewards.
183. Create a PR/Recruiting “network” utilizing trade press and professional association magazines, newsletters, and web sites, run a series of recruiting ads/spots to promote the opportunities and values in becoming an automotive instructor. In addition, dealers associations, manufacturers, and retailers could run similar recruitment promos through their promotional ads in local newspapers, radio, and TV.
184. Free ASE training certification for instructors (for those not certified).
185. Develop a national training academy for selected instructors. Tie pay to graduation.
186. Require schools to be a NATEF certified school.

Education and Training

Issue: Disconnect between Education Funding and Industry Standards

187. Federally mandate NATEF certification
188. Require NATEF certification as pre-qualification for all education and training dollars
189. Develop clear measurements (define industry standards) of intended and acceptable outcome. Communicate to industry measure...then decide what to do

Issue: Recruiting More Industry Certified Instructors

190. Establish apprenticeship instructor training for instructors
191. Increase compensation to instructors to a level high enough to attract and retain quality instructors (10% surcharge on labor)
192. Incentives for working technicians to transition into education with monetary records as well as utilize trade press and professional organizations to run ads and spots to promote opportunities and value to becoming an instructor

Issue: How Do You Promote the Importance of Industry-Certified Training Programs, Instructors, and Technicians

193. National legislation that ties Perkins funding to industry certification
194. At the post-secondary level state funding/workforce funding tied to industry requirements
195. Funding in increments to incentivise certification to states local school districts. Create a plan for the implementation of certification and reward money for each step achieved on an annualized basis
196. Mandate NATEF certification for training programs
197. Recognize NATEF as the industry standard setting entity
198. Well defined career ladder with good paying jobs
199. Existence of an existing infrastructure for training, especially secondary and postsecondary industry recognized
200. An established credentialized system at all rungs of a career ladder with workplace validation
201. Existence of a central body or association to administer the needs of HS members and work with the Workforce Investment Boards and training
202. Develop industry portfolio for technicians. For example: ASE, World Class, SP2, Associate Degree, State Certification (safety and emissions)

National Model for Training

203. Entry-level employers for automotive industry based on standards and benchmarks that are universally acceptable in industry. Model should address both academic and technical standards and present a developmental path when moving from career assessment and interest exploration to special skill attainment with the target population being all youth beginning at 8th grade level.

204. Recruitment process to network with area high schools as a feeder to post secondary technical/career institution.
205. Dual enrollment in areas such as collision/paint body
206. Network with high school [illegible] and specialists for women in technical careers
207. Core curriculum for 1st year A.S. degree student
208. Theory (classroom) all auto students (OZM and generic)
209. Auto lab in individual areas
 - Generic A.S. programs
 - OEM specific P.S. programs
210. Existence of an existing infrastructure for training – especially secondary and post-secondary industry recognized
211. Educate the One Stop system about careers in the industry
212. Use dealerships as training/career centers
213. Tool kit to secure/access/gain funding for schools that want to be NATEF programs
214. Categorize skill sets, programs based on outcomes and employer needs
215. Develop a profile of a good candidate and direct them into the preferred programs
216. Create and disseminate a complete list of automotive technical programs offered nationwide, i.e., high schools, post-secondary, private, workforce development partnerships
217. Sharing of standards for training to industry standards and validate by industry representatives. Assessment matrix of training with advisory council

Feeder System

218. Develop one-year generic certification program which allows exposure to all aspects of industry. Develop a process of evaluating where this individual best fits into this industry. Like bi-lingual service.
219. Identify military technician occupation skills that easily transfer to comparable industry positions. With: Industry connections
 - Army Pays
 - Transfer Assistance Program
220. Require automotive technology programs to use the applied academics materials as developed by the industry and NATEF/ASE.
221. Recruit a recognizable spokesperson
222. Have community colleges host *Train the Trainer* sessions for high-school instructors
223. Enhance secondary and post-secondary statewide articulation agreements
224. Create a Center of Excellence that mandates full spectrum partnerships (E³)
225. Develop as model for all areas of a dealership

[end flipchart notes]

Industry

226. Set standards for Funding of Education by setting Industry standards (Define Industry Standards.)

Maintain

- 227. If schools/instructors don't maintain industry certification, they don't get money from state or federal
- 228. Marketing to U.S. Education an Establish Program Guidelines that targets frontline users and End users in Measurement and Evaluation Process
- 229. Tie Industry "rewards" to certifications: Instructor curriculum. I.e., - autos provided for dems./training – workshops for instructors
- 230. Develop a system to identify under-performing schools and a timeline and process for bringing each school up to NATEF standards. Tie incentives to accelerate the certification process in those schools.
- 231. Make money available to schools with industry certified instructors/that maintain standards

Topic III

- 232. Establish vehicle manufacturer agreement that would require program certification to be eligible for vehicle, vehicle components, and special tools/equipment certifications from the vehicle manufacturers
- 233. Require NATEF certification as pre-qualification for all education and training \$\$
- 234. Tie federal/state money to schools and require them to have NATEF certification before they can receive funds
- 235. Mandate NATEF certification federally
- 236. Tie \$\$ to Industry standards certification <instructor qualification curriculum standards
- 237. Disconnect between funding and industry standards (define industry standards).
Solution: Develop clear measurements of intended and acceptable outcome.
Communicate to industry measure...then decide what to do.
- 238. Develop a national recognition program to recognize those programs who maintain/renew certification. Provide/present a recognition item (plaque, banner, "level" of achievement reward – 5 stars for "X" years of certification)

Dare to Dream

- 239. National Registered Apprenticeship Program Diesel and Automotive
- 240. Retail industry stop overlap selling customer – Express Service – charge for service/job not hours.
- 241. Manufacturers cooperate (pool resources) to develop auto curriculum.
- 242. Training keep pace with technology.
- 243. National certification for employability skills/soft skills .
- 244. Skills USH has curriculum (teamwork, time management, communication, interpersonal skills).
- 245. All technicians have soft skills (employers may need to train).
- 246. All technicians that touch a customer car has a license to perform work.
- 247. Understand the balance of work. There is a need for lower skilled workers. Workers may not need formal A.S. degree.
- 248. Retrain unemployed workers.
- 249. Encourage update training for working technicians to be developed to Continuing Automotive Service Education (CASE) standards (CASE, developed by industry and evaluated by NATEF).
- 250. Career Counselors at one-stop will understand automotive career opportunities.

251. Understand basic skills and can access skills.
252. Strategically determine how many jobs will actually be available (math in industry).
253. All H.S. and ASE certified auto programs.