



The National Council for Workforce Education

## NATIONAL COUNCIL FOR WORKFORCE EDUCATION

### EXEMPLARY PROGRAM AWARDS

#### COVER SHEET

Please include this cover sheet with your application. **The applicant's college must be a NCWE member.**

**AWARD CRITERIA** (check only one)

- Credit Workforce Development Program**  
 **Noncredit Workforce Development Program**

**NAME OF PROGRAM:** HCC Florida Regional Transportation Training Hub

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**EXECUTIVE SUMMARY**

The Ybor City Campus Workforce Training Center is one of the College's best kept secrets. Home to the newly instituted Central Florida Regional Transportation Training Hub, it houses career training programs in the transportation and public service industry fields, including Automotive Collision Repair and Refinishing, Automotive Service Technology, Welding, Law Enforcement and Firefighting, and is the future home of HCC's Diesel Engine Technology, Alternative Fuels Technology, Automated People Mover / Light Rail Technology and Aviation Maintenance programs. In all, over 1,000 students each year train using high-tech simulators, hands-on training, and computerized instruction in this facility.

In 2011, Hillsborough Community College received a \$300,000 grant from the W.K. Kellogg Foundation for its Workforce Training Center. The purpose of the grant was to increase the enrollment capacity of the automotive training programs for an underserved population in East Tampa, Florida. The primary objectives of the grant included: (1) increasing the number of students who earn industry credentials, (2) strengthen the transition and success rates of students who articulate from Community-Based Organizations, (3) enhance existing connections with industry employers/partners, and (4) create systemic change by implementing new partnerships, agreements, processes and academic programs that link education, training, and integrative support services into a comprehensive workforce model that can be replicated at the national level.

Due to the success of the first grant, the HCC Workforce Training Center received a second \$300,000 grant from the W.K. Kellogg Foundation in October, 2013. The focus of the second grant was expanded to include other workforce programs at the training center. The goals of the second grant included: (1) breaking generational cycles of poverty in underrepresented areas of the community, (2) educating students and their families, utilizing a two-generation approach, (3) providing wrap-around social support services, (4) serving single mothers and minorities, (5) promoting family literacy and childhood development, and (6) providing unskilled workers with access to high-wage and high-demand transportation jobs.

The results of the implementation of the second grant were striking. The racial/ethnic diversity of the student population improved markedly from Cohort I to Cohort III to more closely mirror the demographics in the Tampa Bay area. Completion rates for women improved from 25% for Cohort I to 80% for Cohort II and 100% for Cohort III. Whereas female students were leaving the program in Cohort I, that was no longer evident in Cohort III. Key factors in student success over the course of the grant fell into three academic support services categories: connection to Wrap-Around Services on campus and in the wider Tampa Bay community, incorporation of Adult Basic and Employability Skills training into the curriculum, and heightened implementation of student access to Study Skills, Adult Life Skills and Disabilities Accommodations.

## PROJECT DESCRIPTION

Over the past five years, HCC has been developing a programmatic model for its job training programs that includes the following key elements: (1) a curriculum that incorporates industry - established skills and standards, (2) a student cohort design, (3) wraparound support services, (4) stackable industry credentials, (5) a capstone industry internship, (6) a seamless career pathway, (7) advisory councils consisting of industry representatives to provide guidance and technical support, and (8) an emphasis on adult and family literacy.

A major contributing factor to the success of this programmatic model is the long-standing partnerships enjoyed by the College with industry leaders, employers, community-based organizations and private enterprises. The partnerships that assist the College in providing wraparound services to students, and females in particular, are of critical importance to programmatic success. Wraparound services include access to affordable, quality childcare at HCC's nationally accredited campus child development centers.

The project builds upon programmatic strengths by addressing the following objectives: (1) increasing the number of individuals who earn an industry credential and effectively compete for quality employment opportunities within the transportation sector, (2) implementing a planned schedule of family literacy events that unites two generations through shared participation in reading activities, (3) conducting a marketing campaign and recruitment events targeting minority participants and particularly females, (4) assessment of program outcomes and collaboration with college staff to generate a report of promising best practices, and (5) transitioning programmatic expenses into core business operations of the college.

The goals for this project originally included the following: (1) provide unskilled workers with access to high-wage, high-demand, job training, (2) support student success by delivering a full array of wraparound services including career counseling, academic advising, access to quality childcare and child development programs, (3) promote an intergenerational literacy component to enhance both family stability and academic progress for adults and children, (4) target female students for participation in a high-wage, high-demand, non-traditional career pathway, (5) conduct a comprehensive project evaluation, and (6) implement a sustainability plan that ensures the long-term viability of the programmatic model. To achieve these goals and objectives and improve upon the project, HCC has since initiated the following strategies: (1) mandatory industry certification examinations for every student enrolled in a transportation sector program, (2) inclusion of the cost of an industry certification examination into the tuition and fees structure so that it can be supported by financial aid, (3) inclusion of an industry internship component to all transportation programs, (4) increased standards for admission to include a

criminal background check and drug screening, (5) an emphasis on the retention of current students by provision of a full array of wraparound support services that include academic advising, career and employment skills counseling, financial aid management, tutoring, adult basic skills training, multigenerational literacy initiatives, financial literacy, study skills workshops, transportation and housing assistance, and (6) access to affordable quality child development centers on campus.

One of the unique components of HCC's Florida Regional Transportation Hub project is the inclusion of literacy initiatives. Literacy efforts did not begin until the second year of the second Kellogg grant with the hiring of the Literacy Director. Though the focus of the grant was on child literacy, HCC was dedicated to a multigenerational approach. Consequently, Adult Literacy was highly emphasized in the implementation of the grant objectives. Any student who had not yet earned a GED or high school diploma was referred directly to HCC's Adult Education department to earn a diploma while simultaneously pursuing their transportation sector certification training. At the start of the third cohort, an I-BEST model (Integrated Basic Education and Skills Training) was implemented into all classrooms to ensure that all students met a post high school level of adult basic skills. The I-BEST model, developed by Washington State Board for Community and Technical Colleges, has the singular goal of increasing the rate at which occupational students are able to access a college level of academic rigor by placing an emphasis on adult basic skills. In HCC's implementation of the model, all students were administered the TABE and taught Math, Writing, Locating Information and Employability Skills in the classroom for a total of 32 hours of adult basic skills and 16 hours of employability skills. In addition, individualized curriculum plans, study skills workshops, private tutoring, study skills and textbook accessing sessions, and facilitated disability accommodations were added to the program model. In addition, employability soft skills, résumé writing, cover letter writing, an Industry Partners Speakers Series, and other employment-related workshops were incorporated into the curriculum and computer literacy, parenting workshops and financial literacy workshops were offered to students and their families at no cost. The financial literacy workshops, presented by the project's partner GTE Financial, provide information on household budgeting, managing credit card debt, getting the best rate on a loan, obtaining a small business loan, protecting credit ratings, and buying a home.

Another area of emphasis has been Family Literacy. Strategically-placed family engagement literacy posters are distributed throughout the center, and HCC partners with Scholastic FACE, a family engagement branch of Scholastic Books. Each transportation sector student has been issued a "MyON" account for electronic access to books for the entire family, an initiative intended to promote intergenerational literacy. Family reading contests, Kindle give-away, the institution of a leave-one-take-one library, and the distribution of age appropriate literacy kits to children ages 0-18 and to adults at open houses and year-round are examples of some other literacy initiatives. These reading level-organized

literacy kits contain age-appropriate books, parent information flyers, white boards for numeracy and writing, flash cards, a Children's Board Family Guide, and many other literacy-related giveaways. So far, over 10,000 books have been distributed to children and adults, and additional literacy kits are available to families upon request throughout the school year.

Refinement of student support services has also been central to the evolution of the programmatic model. At first only lead instructors and a dedicated academic advisor was on site, with the literacy director arriving year two. As the program has progressed, the value of having dedicated student services personnel specializing in post-secondary vocational and career training programs on site has become increasingly evident. Thus, as the center has grown, in addition to more instructors and program support technicians, HCC has added a recruiter, an admissions specialist, a financial aid manager, a curriculum developer, and a career services specialist to its on-site PSAV-dedicated student services staff. All work in tandem with a team approach to career and technical education and are located within the facility where students learn, making their services easily accessible and their faces high profile to the student.

Finally, and perhaps most important, industry, community and interdepartmental relationships and linkages have been a vital part of HCC's success. Industry partners are present from the inception of a new program and act in vital advisory roles at all points during the implementation process, but most importantly during quarterly advisory meetings. It is here where they advise on updating curriculum to meet the changing demand of workforce trends, advise on equipment, learning materials and relevant trends, and provide equipment and resources to programs who want to stay current. These industry partners come into HCC classrooms as well, helping to bring real-world experiences to students, making them aware of careers in the industry, teaching soft skills and motivating students as well as provide employment, internship and apprenticeship opportunities which allow students to work in the industry prior to graduation. Community partners are also vital to HCC's program model, acting in social support service roles, acting as liaison to financial resources, conducting workshops and information sessions, and helping students navigate difficult situations. It is only through the help of industry and community partnerships that HCC's programmatic model is whole as successful.

**PARTNERSHIPS AND COLLABORATIONS**

When the first grant began, HCC had two community partnerships, Suncoast United Way and Metropolitan Ministries, and one advisory council. During Cohort II HCC held a Community Partner Planning Summit on May 16<sup>th</sup> 2014 that resulted in an additional 29 community partners. Three open houses helped increase partnerships by eight community partner organizations and eight college departmental organizations (See Tables 1 and 2). In addition, Industry Advisory Councils also increased. At the end of the grant period, every program in the Workforce Training Center had its own advisory council made up of employers from the wider Tampa community ranging in size from small businesses to large corporations, from private, public and non-profit sectors (See Table 3).

**Table 1: HCC Community Partners**

A Brighter Community, Inc.	J. P. Morgan Chase
Job Services of Florida-TB Workforce Alliance	ACTS
Adult Emergency Services	Lutheran Ministries
Bay Area Legal Services	Metropolitan Ministries
Big Brothers & Big Sisters	Positive Spin
Career Source Tampa	Ronald McDonald House
Catholic Charities	Salvation Army
Center for Women	St. Joseph’s Hospital
Champions for Children	Tampa Bay Academy of Hope
Children’s Board Family Centers	Tampa Bay Job Links
Children’s Home Inc.	Tampa Community Health Center
Crossroads Tampa Bay	Tampa Housing Authority
Drug Abuse Comprehensive Coordinating Office (DACCO)	Tampa Jewish Family Services
Early Childhood Learning Programs	Tampa Police Department
Family Enrichment Center Kinship Partners	Tampa Veterans Assistance Center
GTE Financial	Tampa Women’s Resource Center
Head Start	The Children’s Board, Tampa Bay
Healthy Start Coalition of Hillsborough County-Children’s Board	The Silver Springs Community Center
Hispanic Services Council	School Board of Hillsborough County
	Wheels of Success

Hotline of Hillsborough (Crisis Center)

**Table 2. HCC Inter-Departmental Academic Partners**

Academic Advising	Child Development Centers
Academic Success Center	Early Literacy Matters
Adult Education Center	Financial Aid.
Career Resource Center	HCC Foundation, Inc.
Center for Innovative Teaching and Technology	Office of Students With Disabilities
English for Academic Purposes (ESL Services)	WINGS Program

**Table 3. Employer Partnerships**

Industry Field	Industry Partners	Size	Type of Corp.	Resource Commitment		
				Type	Level	Frequency
Welding	Florida Structural Steel	Local	Private	Money, Time and Internship	Formal	Monthly
	SunCoast International	Regional	Public	Time, Internships	Formal	Quarterly
	Tampa Tank	Local	Private	Time	Informal	Monthly
	J. P. Morgan Chase	National	Public	Money	Formal	Annually
	The Parks Auto Group	Local	Private	Time, Internships	Informal	Quarterly
	The Morgan Auto Group	Local	Private	Time, Internships	Informal	Quarterly
	The Asbury Auto Group	Local	Private	Time, Internships	Informal	Quarterly
	AutoNation	National	Public	Time, Internships	Informal	Quarterly
	The Ferman Group	Local	Private	Time, Internships	Informal	Quarterly
Auto	Snap-on Industrial Hunter Engineering	National	Public	Time, Money, Tools	Formal	Quarterly
		Regional	Private	Time, Internships	Informal	Quarterly
	USA Tools	National	Public	Time, Tools	Formal	Quarterly
	Matco Tools	National	Public	Time, Tools	Formal	Quarterly
	Continental Tire	Regional	Private	Time, Internships	Informal	Quarterly
		Local	Private	Time, Internships	Informal	Quarterly
	Reeves of Tampa	Local	Private	Time, Internships	Informal	Quarterly
	Ed Morse	Local	Private	Time, Internships	Informal	Quarterly
	Jerry Ulm Dodge Auto Body Express	Local	Private	Time, Internships	Informal	Quarterly
	Local	Private	Time, Consumable Materials	Formal	Quarterly	

HCC's partnerships have continued to grow and transform significantly over the last few years, a direct response to local workforce and economic development needs. One such example was in the case of industry advisory councils. Each advisory council meeting typically has between five and thirty members in attendance. New industry partners continue to express desire to join one of the many advisory councils regularly, and new ways of using the industry partnership model evolve. For example, HCC reached out to the School District of Hillsborough County (SDHC) in pursuit of articulation agreements. Other opportunities included SDHC students and school counselors touring HCC facilities and SDHC recruiters working closely with the automotive industry programs within SDHC schools. Today, streamlined vocational and career pathways now span SDHC junior secondary, senior secondary and HCC's post-secondary programs throughout the Tampa Bay area.

Similar transformations have occurred with community partnerships. One example of this is the case of GTE Financial. At first GTE Financial attended the open house as a marketing strategy. As the relationship evolved, they began to provide financial literacy workshops at the Workforce Training Center once a month. In the beginning, the curriculum did not adequately address student needs; however, after revision of the focus of the workshops with an eye toward audience, the literacy workshops became so successful that HCC began offering them to its Police Academy students as well. Unrelated to the grant, GTE Financial also sponsored a new scholarship for HCC students, opened a student-run credit union at one of the College's campuses, and became the sponsor for a new annual college-wide award, the GTE Community Impact Award, to be awarded to an employee annually for service to the community above and beyond their duties at the College

Inter-departmental partnerships have also grown significantly. In addition to increased attendance at open houses, internal departments began to service HCC's workforce training students specifically. Due to the geographic location of the HCC Workforce Training Center, workforce training students were out of touch with wider college services. The silo effect was reversed due to the creation of symbiotic relationships mutually beneficial to all. For example, students at HCC's Adult Education Center were offered tours at the Workforce Training Center and introduced to the possibility of continuing their post GED education in a Workforce program. Students at the Workforce Training Center who did not have their GED or high school diploma were offered services at the Adult Education Center so that by the end of their workforce program, in addition to an industry certification, they would also have their high school diploma. Such reciprocity has proven to be a critical component in not only in growing these relationships but also in raising student completion and retention rates.

A particular success for HCC's Transportation Training Center has been the number of industry partners who participate, and this success has transferred to other programs not within the scope of the initial grant. In fact, currently every HCC vocational program, whether at the transportation center or not,

now has its own program-specific industry partner advisory council made up of employers ranging in size from small businesses to large corporations. HCC's relationship with these employer partnerships vary according to the size of the company and their available resources. Some commit to service on advisory councils, some offer internships within their companies, and some donate time, materials, and expertise. As new programs have joined the HCC Transportation Training Center, this model has been part of their program implementation dichotomy. For example, a new program about to come online is the Diesel Technology program. For the past two years members of the local diesel industry have been involved in the Diesel Advisory Council where they first advised on the layout, design, and materials and equipment needs for the program's facility, next were critical to curriculum development and program refinement to meet the specific needs of the local area, and then helped develop and organize tools lists, equipment donations and instructor pools. At every step in the process, these industry partners have been critical to the preparation and development of the Transportation Training Center's future diesel program, ensuring that local workforce and economic development needs have been addressed in both course offering and specific curricular content. In August, two years after the first diesel advisory council met, the first diesel cohort will enter HCC's doors, and their future employers have already pledged internships and jobs at the end.

Service organization community involvement has also played a major role in the growth and success of the programs offered by the HCC Florida Regional Transportation Training Hub. HCC developed a Community Partner Action Plan early in the process to get community-based leaders from all racial/ethnic and socioeconomic sectors onboard in reaching prospective students and supporting current students. Once the action plan was in place, community-based partners provided social services to help students, especially those from low income families, to overcome the challenges they faced as they forged a career path, and those who served underrepresented communities had a large customer base whom they recommended to the HCC program. Community-based leaders and their organizations needed help identifying prospective students who would benefit from the Workforce Training program. While it was important to have all community-based business leaders working with the program, the HCC Workforce Training Center was interested in organizations that were willing to work with the students and provide assistance where necessary. Also, key stakeholders were asked to refer students from under-represented populations and families living in high poverty communities, often defined in the literature as families in the low-socioeconomic constituency. Based on their clientele, community based-leaders were best suited to provide insight into the challenges and the needs of families from high poverty communities. The first planning summit, *Building a Community Partner Action Plan to Address Generational Poverty*, was a huge success. Following this, engaging community leaders and industry employers in advisory council activities was critical to ensuring that community appropriate strategies and programs were identified and

pursued. A second critical component was the creation of new linkages and maintaining current relationships with community partners within the college and the wider Tampa Bay area. At the administrative level, emerging and evolving relationships with non-profit and public financial organizations such as J. P. Morgan Chase and the HCC Foundation, with members of the Tampa Bay Leadership Council, and with local industry partners were cultivated and fostered.

In order to fund and sustain the programmatic model, the College has pursued several avenues: (1) Perkins funding, (2) alternative revenue streams in the form of advertising/promotional opportunities with manufacturers, (3) leveraged industry partnerships or sponsorships in the form of equipment, tools, money and supplies, (4) state accountability performance measure funding generated from the number of students earning an industry credential, and (5) other private funding opportunities, including the continuation of an HCC Foundation scholarship program specifically for transportation sector workforce students.

Hillsborough Community College has been very successful in securing funding through the avenues previously mentioned. Perkins funding has been allocated to sustain two student service support positions that are critical to the success of the programmatic model. The college has leveraged advertising and promotional opportunities with manufacturers to purchase tools, equipment and supplies at significantly reduced costs. State performance funding generated from students earning an industry credential has been allocated to sustain four faculty positions within the Welding Technology program. These additional positions have allowed the welding program to increase enrollment capacity from 16 to 72 students annually.

In addition, the College has received generous support through its industry and community partnerships. A \$50,000 private grant from the Bank of America has supported the creation of a Career Planning and Placement Coordinator position that is critical to student success within the HCC workforce model. The JP Morgan Chase Foundation awarded Hillsborough Community College two private grants in the amount of \$250,000 and \$1,000,000. The \$250,000 grant was matched with the state performance funding to increase the enrollment capacity of the Welding Technology program. The \$1M grant was provided as seed money to develop other transportation sector training programs including Diesel Engine Technology, Alternative Fuels Technology, Automated People Mover / Light Rail Technology and Aviation Maintenance.

Finally, additional funding has been obtained through local and state level governmental sources. The Florida Legislature has awarded Hillsborough Community College \$2.5M in reoccurring funding to support the JP Morgan Chase Foundation grant in the development of the other transportation sector training programs including Diesel Engine Technology, Alternative Fuels Technology, Automated People Mover / Light Rail Technology and Aviation Maintenance. The U.S. Department of Commerce,

Economic Development Administration, awarded the College \$1.25M to construct a welding shop and diesel repair shop at the Workforce Training Center. The Hillsborough County, Florida Economic Development Department awarded the College a \$322,000 grant to develop an Advanced Manufacturing program. Funding from the grant was used to establish an American Welding Society (AWS) accredited test center for manufacturing and transportation sector employers in need of high-skilled workers.

Though funding has grown, this has not occurred without HCC's active advocacy for policy strategies centered on a programmatic model that included incorporating industry established skills and standards into the curriculum frameworks, stackable industry credentials, seamless career pathways, capstone industry internships, and advisory councils that fostered private-public partnerships. The success of this policy advocacy has been dependent upon several specific leveraging strategies:

1. HCC's Ybor Campus President obtained an appointment to the Board of Directors for the Hillsborough County Children's Board, Hillsborough County's primary advocacy and policy-making group. The Children's Board is focused on safety, health, nutrition, and education. Last year, they successfully launched a campaign to sustain the county's support of children's initiatives through property tax assessments.
2. HCC's Vice President for Workforce Education obtained a position on the Board of Directors for CareerSource Tampa Bay, an organization that provides funding for workforce initiatives particularly for underserved populations. CareerSource also has responsibility for implementation of federal initiatives including the new Workforce Innovation and Opportunity Act. Working collaboratively across the State, the regional workforce boards developed an implementation plan that better aligns resources and targeted underserved populations.
3. HCC's Vice President for Workforce Education appeared before the Higher Education Subcommittee of the Florida Legislature in order to advocate for expanded funding for statewide workforce programs and particularly apprenticeship programs targeting women and veterans. To date, the Senate has approved initiatives that will expand funding and the House will vote in the near future.
4. Each year HCC develops a legislative agenda that is shared with the regional legislative delegation and influential community partners such as the Greater Tampa Chamber of Commerce. Last year HCC secured \$1M for additional equipment to support workforce programs college-wide, and \$2.5M for the development of other transportation sector training programs including Diesel Engine Technology, Alternative Fuels Technology, Automated People Mover / Light Rail Technology and Aviation Maintenance.

All of these advocacy measures directly impacted Workforce Training Center programs. Moving forward, similar advocacy strategies will continue to be priority at the highest administrative levels.

## **ECONOMIC IMPACT**

Over 84% of HCC's graduates stay in the local community. The HCC Workforce Training Center graduates over 500 highly skilled workers annually for middle -wage jobs such as automotive body repairers, automotive service technicians, bus mechanics and diesel engine specialists, welders, police officers and firefighters.

These highly skilled workers contribute \$17M in entry salary alone to the local economy. They fill 14% of the 3,812 available jobs in the Tampa Bay region. The mean hourly wages from these available jobs contribute over \$154M to the economy (See Table 4).

With an average wage of \$22.46 per hour, each skilled transportation sector technician can expect to earn at least \$44,892 per year. Master Technicians with at least five years' experience can expect to earn upwards of \$100,000 per year.

Graduates of the police and firefighting programs can expect to earn an annual mean salary of \$56,840 and \$51,000 respectively.

Aside from the direct economic impact attributed to annual income, there is the added social benefit of increased consumer spending, lower unemployment, and less dependence on government assistance programs and increased public safety sector personnel.

The HCC Workforce Training Center also serves as a catalyst for further research and development to enhance innovation and efficiency in the transportation industry. Faculty, staff and students have partnered with the University of South Florida Center for Urban Transportation and Research (CUTR), the Tampa Bay Clean Cities Coalition and Tampa/Hillsborough Expressway Authority to develop training programs for bus mechanics and alternative fuel technicians as well as participate in a U.S. Department of Transportation autonomous vehicle pilot study for vehicle to infrastructure (V2I) technology. This research and development has the potential to attract industry employers seeking highly-skilled workers.

**Table 4. Economic Impact of HCC’s Florida Transportation Training Hub**

Occupational Title†	2016 Hourly Wage		Annual Openings	Annual Openings Mean Wages	Annual Graduates	Annual Graduates Entry Wages
	Mean	Entry				
Aircraft Mechanics and Service Technicians	27.27	17.34	441	\$24,052,140	30	1,040,400
Automotive Body and Related Repairers	19.96	13.07	400	\$15,968,000	30	784,200
Automotive Service Technicians and Mechanics	18.92	11.84	2,014	\$76,209,760	60	1,420,800
Bus and Truck Mechanics and Diesel Engine Specialists	21.58	15.20	394	\$17,005,040	30	912,000
Automated People Mover / Light Rail Technician	24.50	21.80	35	\$1,715,000	30	1,308,000
Welders, Cutters, Solders and Brazers	18.24	12.76	528	19,261,440	72	1,837,440
Police Officers and Sheriff's Deputies	28.42	19.48	1,836	104,358,240	175	6,818,000
Firefighters	25.50	15.54	993	50,643,000	120	3,729,600
<b>Total</b>			<b>3,812</b>	<b>\$154,211,380</b>	<b>547</b>	<b>\$17,850,440</b>

## **PROGRAM RESULTS**

A major retention strategy component of this project was to develop a centralized model of student support services for its transportation workforce training center which began with the hiring of a workforce-dedicated staff, including an onsite Recruiter, Admissions Counselor, Academic Advisor, Financial Aid Manager, Career Counselor and a Literacy Director, who coordinates the wrap-around services, Adult Basic Skills, Life Skills workshops, Disability Services, onsite testing services, tutoring services, study skills workshops, and efforts to connect transportation students to the wider college community and to the community at large outside of the college.

A second major retention strategy was the implementation of literacy initiatives which fell into three academic support services categories: connection to Wrap-Around Services on campus and in the wider Tampa Bay community, incorporation of Adult Basic and Employability Skills training into the curriculum, and heightened implementation of student access to Study Skills, Adult Life Skills and Disabilities Accommodations. Special emphasis was placed on adult literacy. Mandatory classes in financial literacy, numeracy, communications, and soft skills were implemented facility wide in all transportation sector training programs. Further, in the third year, beginning in August 2015, an Integrated Basic Education and Skills Training (I-BEST) model was implemented in all classes. Employability Soft Skills training, in conjunction with an industry partner guest speaker series, was added beginning in November 2015. In addition, 100% of all students received financial literacy instruction presented in partnership with GTE Financial. Parenting and computer classes were offered on site.

One major completion strategy was to incorporate financial support of industry certification testing into the programmatic model. In this model, the cost of two industry certification tests are covered by the training program, and students are encouraged to take more than two to increase their employability. In order to foster success, students are given the opportunity to choose which two tests to take and to take them at any time throughout their training program. Through this method, students could conceivably graduate with all industry certifications if they so choose –and some have.

Another major completion strategy implemented during this project, however, was the inclusion of wrap-around services. HCC partnered with community-based service organizations that worked with and assisted students throughout the programmatic funding period through the Literacy Director's office which provided wrap-around service referrals, provided information on home literacy, and handled student and family literacy issues within the multi-generational context. Students availed themselves of a variety of wrap-around services offered through community partners, including: family counseling, vocational rehabilitation, housing referral, drug intervention, transportation, anger management, health care, financial counseling and services, elder care, food banks, parks and recreation, WIA, women's

health, software downloads for study aids, and spiritual wellness and onsite child care. In addition, special efforts were made to identify and put into place special services for students with second language challenges and learning disabilities.

Finally, HCC also decided early on that it wasn't enough to retain students to completion –HCC's program needed to result in jobs. HCC's Industry partners played a major role in that, working with HCC to provide internships and full-time jobs for graduates. In addition, stricter standards for admission which included passing a criminal background check, and drug test were implemented. The justification here was that if students are not employable by program's end due to non-school-related reasons, we would not be able to place them in internships and ultimately jobs. Failing a drug test automatically prevented students from entering a program. A student must also not have been convicted of a felony within five years of **program end**. This allowed for students to have opportunity even if they had committed a felony in early life. Driving records also must be clear by program end because many companies cannot insure employees with bad driving records. By the end of the project, the quality of the students graduating HCC Workforce Training Center programs was well-recognized and validated by these industry leaders at the quarterly industry advisory councils. The companies' confidence in the students not only helped students secure gainful, meaningful employment, but students were enthusiastic about joining these companies. Graduates were invited to talk with new and prospective students about both the program offered by HCC and the opportunity to find meaningful employment within their communities.

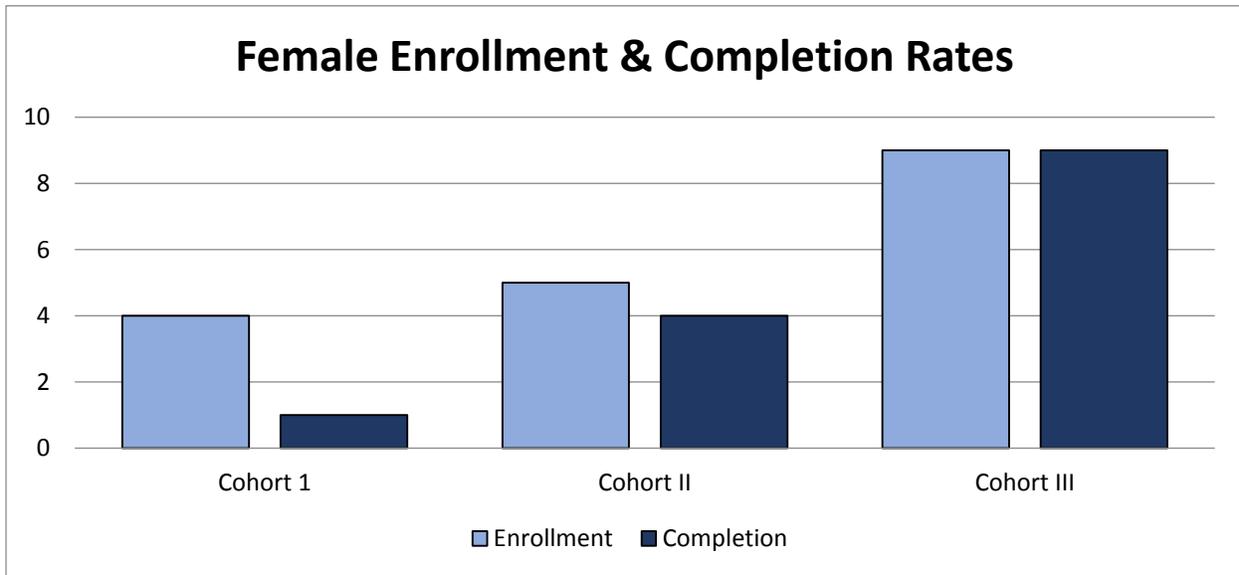
The results of the implementation of this project have been remarkable. First and foremost, 100% of graduated students received one or more industry certification(s). In addition, 100% of students who graduated, finished the program with adult literacy skills above the 12<sup>th</sup> grade level. Completion rates increased by an average of 18.25 % overall and by as much as 35% in individual classes. Ultimately, 100% of graduates were placed in full time permanent employment within the transportation sector at the end of their training programs (see Table 4).

**Table 5. Retention and Completion Rates by Cohort**

	Kellogg Cohort	# Students Originally Enrolled	# Students Enrolled after Midpoint	# Students Graduated	Retention Rate Year 1	Completion Rate	Graduate Higher Education / Job Placement	Completion Date	
<b>Automotive Services AM</b>	1	32	29	22	91%	69%	100%	1/2015	
	2	36	26	26	72%	72%	100%	1/2016	
<b>Automotive Services PM</b>	1	32	21	16	66%	46%	100%	1/2015	
	2	27	20	20	74%	74%	100%	1/2016	
<b>Automotive Collision Repair</b>	1	38	16	16	42%	42%	100%	2/2015	
	2	26	20	20	77%	77%	100%	2/2016	
	3	26	23	23	88%	88%	100%	2/2017	
<b>Welding</b>	<b>AM</b>	1	16	15	14	94%	88%	100%	4/2015
			15	14	14	94%	94%		
	<b>PM</b>	2	16	16	15	100%	94%	100%	8/2016
			16	16	15	100%	94%	100%	8/2016
			16	16	15	100%	94%	100%	8/2016

In addition, completion rates for women improved from 25% for Cohort I to 80%t for Cohort II and 100% for Cohort III. Whereas female students were leaving the program in Cohort I that was no longer evident in Cohort III (See Figure 1).

**Figure 1. Female Enrollment & Completion Rates**



Finally, the racial/ethnic diversity of the student population also improved markedly from Cohort I to Cohort III to more closely mirror the demographics in the Tampa Bay area (See Table 5).

**Table 6. Race/Ethnicity By Cohort Compared to US Census Statistics for Tampa, FL.**

Race	Cohort I	Cohort I	Cohort III	Cohort III	Tampa Bay
Asian	2	3%	3	4%	3.4%
Black	6	8%	13	17%	26.2%%
Hispanic	16	20%	27	36%	23.1%
Multiracial	4	5%	7	9%	3.2%
White	51	65%	25	33%	46.3%

## **REPLICATION**

In 2008 the Institute for a Competitive Workforce (ICW) issued a publication entitled “The Skills Imperative” in which it outlined a severe skills talent shortage in the United States, this in spite of an annual \$1.3 billion funding by the federal government to support innovation and expansion of quality CTE programs (Institute for a Competitive Workforce, 2008). At the same time, the Perkins 2012 Reauthorization bill recognized formally a disparity in equity and access among American workers (United States Department of Education, Office of Vocational and Adult Education, 2012). In 2014, President Obama’s Workforce Innovation and Opportunity Act WIOA addressed this disparity by applying equity and access requirements as prerequisite to funding, but the issues that face the workforce haven’t gone away (US Department of Education, 2017). In fact, this has been compounded by a phenomenon outlined in a 2015 report by the Bureau of labor statistics that pointed to a severe aging out of the American workforce, as well as indicators that for the first time in history, the American Workforce is comprised mostly of women and minorities (Bureau of Labor Statistics, 2015, December). What all this tells educators is that America’s career and technical talent shortage exists simultaneously with a surplus of potential minority and women workers who aren’t being recruited proportionately to their percentage of the population into the workforce, who aren’t being trained fast enough to meet the needs of an aging workforce, and who aren’t being paid and promoted equitably once they get to the workforce. Indeed, a crisis exists in today’s American workforce, and it is a tale of equity, access, and shortage. The good news is that the crisis is still fixable through a concerted effort of Career and Technical Education (CTE) educators and business – CTE educators can contribute to improving the preparation of students for the future job market, and businesses can create opportunities for people to obtain the skills they need. HCC’s Transportation Training Hub is proof positive of that.

### **How CTE Educators Everywhere Can Replicate This Program Model**

What HCC has done at the Workforce Training Center is phenomenal. In just five short years, it has grown from a one garage single program to a mini-campus with multi-million-dollar funding. But it didn’t happen in a vacuum. HCC borrowed best practices from all over the country, threw in a couple of original ideas and fastened them together with old fashioned ingenuity and elbow grease. For example, in 2008 the Institute for a Competitive Workforce outlined some very real ways in which CTE could contribute to improving the preparation of students for the future job market. The initiative they outlined starts with designing programs that are at once rigorous, relevant to the needs of business, project-based, effective and focused on career readiness. Programs like these, it says, produce lower drop-out rates, higher enrollment and graduation rates and higher earnings than students who do not enroll in CTE

programs (Institute for a Competitive Workforce, 2008). These practices are documented and absolutely reproducible, and, again, HCC is proof that this can work.

Still, schools who would replicate this model need to understand that simply teaching what needs to be taught is not enough. There is an additional imperative to prepare students to function as employees and citizens out in the world once they are trained. These workers of tomorrow need to know how to apply critical thinking, systems thinking, and team thinking strategies to real work and life situations as well as be able to demonstrate a basic level of literacy and numeracy. In addition, students need to be able to stay in the programs once they are admitted, to be able to weather the personal and academic barriers which inevitably occur, especially among minorities and women who are more likely to live in poverty, more likely to earn less than white males and more likely to drop out due to economic concerns (Bureau of Labor Statistics, 2009, November).

One such way to approach this is through the explicit and implicit application of employability skills and adult basic skills training in all CTE programs, as HCC has done. Taught in a cohort model, all students in transportation training programs are given a math, reading and writing refresher during the first 12 weeks of their program using the I-BEST model. It only requires four hours per week, but the key is to tie everything to the curriculum so that no instruction time is lost. Here, choosing training materials which augment the curriculum is vital. For example, both welders and mechanics need to learn circumference. Welders are taught the concept with a "*Math for Welders*" book where the problems call for measuring pipe diameters. In contrast, auto services students learn it by measuring rotors or calibrating breaks using a "*Math for Automotive Industry*" book. It's the same concept, just trade specific, and everything is done in groups so that students learn systems thinking and teamwork.

In this way, in addition to an adult basic skill component, an employability skills component is also emphasized. This real world application is critical. HCC's industry partner visiting speaker series and financial literacy components, for example, were in response to this need and happened just by asking industry partners at the quarterly advisory meetings to come talk to our students. HCC has found that any time industry is involved with the students they may someday hire, students find value in their preparation. Curriculum is augmented on a regular basis by not only best practices but also recommendations from these industry partners at the quarterly advisory council meetings in each discipline. Finally, academic support and wrap-around services are in place to help students navigate challenges wherever and whenever they occur. And they will occur. What HCC has done differently is to have someone at ground zero just off the beaten path who coordinates support service referrals, to help students through these bumps. Other institutions can do this, too. It's just a matter of looking around at the local community and forming reciprocal relationships.

### **How Businesses Can Be Involved in Replicating This Program Model**

HCC would not have experienced this level of success without its industry partners, and thus the primary goal of any school who would replicate this program model must be to develop and nurture these relationships. And this has a reciprocal advantage. Though improving preparation is important, perhaps the means to alleviating the talent shortage crises starts with, to use the vernacular, “getting butts in the seats,” something that businesses are perfectly positioned to promote and fund. In the past, CTE has relied upon secondary vocational programs in the high school pipeline to populate its programs. Indeed, this is a rich pool from which to pull future students. The U.S. Chamber of Commerce reports that in 2005 almost all high school students took at least one vocational course, that 60% took three or more subsequent courses, and that these statistics did not contribute detrimentally to the number of students taking or continuing on to STEM programs at the post-secondary level (Institute for a Competitive Workforce, 2008). Unfortunately, most of those students are encouraged to go on to college or universities and not into CTE fields (Office of Vocational and Adult Education, 2012), and a large portion of them are still undecided as to what their next step is as late as the day before they graduate. Meanwhile, 78% of U.S. jobs in the near future will require some sort of industry certification, postsecondary degree, credential or long term training program. How educators funnel these students into CTE training where they will be able to not only meet the needs of the future workforce but also obtain those certifications and credentials essential for success in the workforce is the fundamental question here for colleges who would replicate this model, and the answer to that just might be business itself.

The Workforce Initiative Opportunity Act calls for businesses to be intricately involved with workforce training in order to promote effectiveness and (United States Department of Labor, 2017). The ICW calls for business to engage in four particular areas: programs, students, teachers and policies. Advisory groups like those at HCC are a good example of businesses engaging with programs. At these advisory meetings, industry partners advise on updating curriculum to meet the changing demand of the workforce trends, advise on equipment, learning materials and relevant trends, and provide equipment and resources to programs who want to stay current. These industry partners come into HCC classrooms as well, helping to bring real-world experiences to students, making them aware of careers in the industry, and motivating students. Finally, these industry partners provide employment, internship and apprenticeship opportunities which allow students to work in the industry prior to graduation. Other ways in which businesses can help is through provision of teacher training and workshops, career to Teacher Initiatives and representation of CTE concerns in local Chambers of Commerce (Institute for a Competitive Workforce, 2008). And all of these programs need to be equally accessible to all students, regardless of race, ethnicity, socioeconomic status or religious preference, something required by Title IX and the Fair Labor Act.

HCC's program model can be adopted elsewhere because HCC utilizes an evidence-based approach for its job training programs. Each key element in the programmatic model has been tested in other research projects involving community-based organizations, industry partners, workforce boards, and private/public enterprises. Many of these key elements have been identified as "best practices" in other projects. However, other organizations may encounter a resource challenge when trying to incorporate all of the key elements into a single programmatic model –and it has taken HCC years to develop this programmatic model. Ultimately, it will be a collaboration of the CTE education institution and businesses which will successfully implement this model. Institutions will need to address not only how it trains its workforce but also, and most critically how intricately industry and education work together to ensure real world application –that's where the value in this model lies. In a recent interview, a woman training for the welding field at HCC's facility expressed her fears, "It was very difficult even to walk in the building...I knew I was going to be a minority, and I didn't really know what to expect from the guys... But in the end, it has not been about who I am but about what type of work I do... In the end, it wasn't about being a girl, but about being a good welder." It is HCC's contention that herein lies the cornerstone of any attempt to replicate this program model successfully. For this program model to be reproducible, successful, and sustainable, the focus must ever be on the student. Stated another way, the focus must not be on financial or personal gain for the institution or industry, but more on producing a good product, the American worker of tomorrow.

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