

Automotive Youth Educational Systems
(AYES)
Program-Enrollment Comparison Report



Florida Department of Education
Division of Career and Adult Education
Loretta Costin, Interim Chancellor

March 2010

AUTOMOTIVE YOUTH EDUCATIONAL SYSTEMS (AYES)

BACKGROUND AND DESCRIPTION

Automotive Youth Educational Systems (AYES) is a partnership among participating automotive manufacturers, participating dealerships, and select secondary automotive education programs. It is designed to encourage young people to consider satisfying careers in retail automotive service, and prepare them for entry-level career positions or advanced studies in automotive technology. There are presently AYES affiliated schools in 45 states.

Through its dealership and school partners, AYES strives to enhance the public image of dealerships and dealership careers, build local partnerships between dealerships and high quality schools, and foster positive working environments in dealerships. Dealerships today are in competition for qualified employees, not only among themselves, but also among restaurants, mass marketers, other retail outlets and other professions. Dealerships need to reach out to young people and their parents to explain the challenge and rewards of pursuing a retail automotive career. AYES is helping in this effort by providing “how to” ideas and support materials on conducting dealership tours for educators and youngsters, offering “job shadowing” opportunities, and taking part in “career days” and “career fairs” at local schools.

Standards and Responsibilities

Secondary automotive service and collision repair programs selected for AYES must be ASE-certified and have active SkillsUSA chapters. In addition to promoting automotive careers at the local level, participating dealerships are asked to get involved with their school's Business & Education Council, sponsor one or more students for paid internships, and underwrite the cost of AYES Tool Scholarships for their interns, thereby reducing the financial burden of assembling good quality starter tool sets, which can be a significant hurdle for prospective young technicians.

How Students Grow into Professionals

Qualified high school juniors are invited to take part in AYES. In addition to taking the required academic courses toward their high school diplomas, they take challenging classroom/laboratory courses in basic automotive technology or collision repair and refinishing. Through their participation in SkillsUSA, they strengthen their “employability” skills (e.g., dependability, positive attitude, spirit of teamwork). Typically, eligible juniors begin their internships at a dealership on a full-time basis during the summer between their junior and senior years. Under the guidance of a mentor (an experienced technician), they develop both their technical skills and their skills as a valuable employee. Upon high school graduation, and AYES certification, participating students are prepared to begin full-time entry-level employment, or to advance their technical education.

AYES is designed with continuing professional development in mind. Many participating dealerships anticipate sponsoring their students in manufacturer-supported college-level programs, such as the

Chrysler CAP, GM ASEP, Honda PACT, Toyota T-TEN, or certificate programs offered by Mercedes-Benz and BMW. Through their AYES experiences, most students come to realize the importance of continuing their professional development, either through a college degree program or through manufacturer-provided training.¹

AYES in Florida

The secondary automotive education programs in Florida consists of the Automotive Service Technology (AST) program (program numbers 8709400 at high schools and I470608 at Technical Centers). There are no Automotive Collision Repair and Refinishing programs in Florida that are affiliated with AYES. The Automotive Service Technology program was offered at 121 schools and centers during the 2008-2009 school year. Those schools reported enrollments, graduations, dropouts and performance data for one or both of the automotive education programs. A total of 11,053 students were enrolled in the Automotive Service Technology program in 2008-2009.

Twelve of the 121 high schools and technical centers offering the Automotive Service Technology program at the secondary level were affiliated with AYES.² Those twelve schools and their districts are:

- Atlantic Technical Center, Broward
- Charlotte Technical Institute, Charlotte
- Frank H. Peterson Academies, Duval
- Lee County High Tech Center Central, Lee
- Lyman High School, Seminole
- William T. McFatter Technical Center, Broward
- Mid-Florida Tech, Orange
- PTEC Clearwater, Pinellas
- Robert Morgan Educational Center, Miami-Dade
- Sarasota County Technical Institute, Sarasota
- Titusville High School, Brevard
- Maynard A. Traviss Career Center, Polk

For comparison purposes we reviewed schools affiliated with the AYES program and schools not affiliated with the AYES program with all schools providing the AST program in 2008-2009. The schools affiliated with the AYES program served 1,004 AST students and the non-affiliated schools served 10,049 AST students. Table 1. *Statewide Automotive Education Programs Enrollment Data, 2008-2009*, compares total enrollments and enrollments in the AST program for targeted groups of students. The table compares schools affiliated with AYES and schools not affiliated with AYES with enrollments in all schools that offered AST programs in 2008-2009. The targeted population groups were:

¹ https://www.eyes.org/about/general_information

² In addition, three other technical centers (Lorenzo Walker Institute in Naples, Manatee Technical Institute in Bradenton and TECO/PATHS in Kissimmee) are also affiliated with AYES. Although those three centers enroll secondary students under their dual-enrollment programs, they did not report any secondary enrollments in their AST programs during the 2008-2009 school year.

- Non-traditional students (i.e., female students enrolled in a traditionally male-dominated program);
- Minority students;
- Students with disabilities (as defined in the Individuals with Disabilities Education Act); and
- Economically disadvantaged students (i.e., eligible for free or reduced lunch).

Table 1. Florida Statewide Automotive Education Program Enrollment Data, 2008-2009.

Student Characteristics	All Schools with AST Programs		Schools Affiliated with AYES		Schools Not Affiliated with AYES	
	Total Enrollment	Enrolled in AST Programs	Total Enrollment	Enrolled in AST Programs	Total Enrollment	Enrolled in AST Programs
Non-Traditional (Female)	54,357	836 (1.54%)	4,207	50 (1.19%)	50,150	786 (1.57%)
Ethnic Minorities (All non-Caucasian)	59,353	5,179 (8.73%)	4,556	423 (9.28%)	54,797	4,756 (8.68%)
Students with Disabilities	15,883	739 (4.65%)	1,259	202 (16.04%)	14,624	537 (15.07%)
Economically Disadvantaged	55,690	758 (1.36%)	3,518	379 (10.77%)	52,172	1,356 (2.60%)

Source: CCTCMIS

METHODOLOGY

We reviewed data submitted by the school districts to the Community College and Technical Center Management Information System (CCTCMIS). Data for all schools involved were imported into an Excel spreadsheet and organized into AYES-Affiliated and non-AYES-Affiliated categories. We extracted tables showing the student enrollments, by gender, ethnicity, disability and economic status, the graduation and dropout rates, percentages of students achieving one or more occupational completion points (OCP) during the year, and the percentages of students that had been enrolled in the AST program at the same school during the previous year.

FINDINGS

Target Population Enrollments – We compared automotive education program enrollments for four target populations to determine if the schools affiliated with AYES were doing a better job than non-AYES schools of attracting students from those populations. Appendix A contains details of target population enrollments.

Nontraditional – Enrollment in the AST program is generally dominated by male students. It is considered non-traditional for a female student to enroll in one of the automotive education programs. The Automotive Service Technician program is included on Florida’s list of Non-Traditional Career and Technical Education programs. In the 12 schools affiliated with AYES only 1.19% of the AST students were females while the non-AYES school female enrollment was 1.57%.

Ethnic Minorities – The AYES affiliated schools did a slightly better job than non-AYES affiliated schools of attracting minority students. Overall the AYES percentage of minority student enrollment was 9.28%, compared with 8.68% for the non-AYES schools. However, in detail, the percentages of African American, Hispanic and Multi-Racial students were about the same in the two groups of schools while the percentages of Native American students (14.81% vs. 8.54%) and Asian students 8.33% vs. 5.72%) in the AYES schools were much greater than for the non-AYES affiliated schools.

Students with Disabilities – We considered students with disabilities as a special target population. The reported data indicated that AYES affiliated schools did a significantly better job of attracting disabled students to the AST program, by a margin of 16.04% to 3.67% for the non-AYES schools.

Economically Disadvantaged – We also considered economically disadvantaged students as a special population. Students from families of low socio-economic status frequently enroll in Career and Technical Education Programs, particularly in the “trades.” We used eligibility for free or reduced price lunch as the criterion for identifying economically disadvantaged students. We found that the enrollment of economically disadvantaged students was significantly greater in the AYES schools (10.77%) than in the non-AYES schools (2.60%).

Performance—We reviewed four criteria to compare program performance between the AYES affiliated schools and those not affiliated with AYES.

Program Retention – Secondary students at the AYES affiliated schools are invited to participate in the automotive education programs beginning in their junior year. The program continues through the summer between their junior and senior years to graduation. To evaluate program retention we reviewed data on the numbers of students enrolled in the AST program in 2008-2009 who had been enrolled in the program during the 2007-2008 school year. We found that, overall, nearly one student out of every three enrolled in an AST program in both school categories in 2008-2009 had been enrolled in that program during 2007-2008. Overall, the difference between the two school groups was 5.51% higher for the AYES affiliated schools, with non-traditional retention in the AYES affiliated schools nearly ten percent higher. Retention of students with disabilities was also much higher in the AYES affiliated schools (40.59% vs. 27.91%). The differences among the target groups are shown in *Table 2. Comparison of Students Returned from 2007-2008.* (Appendix B).

Table 2. Comparison of Students Retained from 2007-2008.

Target Populations	Schools Affiliated with AYES (N=1,191)	Non-AYES Schools (N=11,592)
Non-Traditional	26.00%	16.03%
Ethnic Minorities	30.26%	26.70%
Students with Disabilities	40.59%	27.91%
Economically Disadvantaged	24.27%	26.51%
Overall	34.06%	28.55%

Source: CCTCMIS

Dropout rates – While getting the students into the programs is a significant step, keeping them in the program is essential toward reaching their ultimate goal, a high school diploma with sufficient job skills to become employed. We reviewed reported data for students in both categories of schools to compare dropout rates. We found that, although the dropout rates for both categories of schools was low for all four target populations, the AYES affiliated schools’ overall dropout rate was slightly lower than for the non AYES schools. Among the minority groupings, there were no dropouts from schools affiliated with AYES among Native American, Asian or Mixed Race students. While the dropout rates for non-traditional students, minority students and economically disadvantaged students were much lower in the AYES affiliated schools, the dropout rates for students with disabilities, while higher, were about the same for the two school groups. *Table 3. Comparison of Dropout Rates, 2008-2009* provides details of dropout rates (Appendix C).

Table 3. Comparison of Dropout Rates, 2008-2009.

Target Populations	Schools Affiliated with AYES (N=1,004)	Non-AYES Schools (N=10,049)
Non-Traditional	2.00%	4.07%
Ethnic Minorities	1.42%	6.24%
Students with Disabilities	9.90%	9.93%
Economically Disadvantaged	2.64%	5.69%
Overall	3.39%	4.81%

Source: CCTCMIS

Occupational Completion Point (OCP) – OCPs are accountability measures used to evaluate a student’s progress through a career and technical education program. OCPs are described and defined in each program’s curriculum framework. A framework may identify as few as one or as many as ten OCPs that the student must earn to complete the program. The framework for the Automotive Service Technician programs requires nine OCPs. To evaluate relative performance of AYES-affiliated and non-AYES schools we compared data regarding the percentages of students enrolled in an AST program who earned one or more OCPs during the 2008-2009 school year. We found that the AYES affiliated schools performed significantly better on this measure. Overall, 89.94% of the students in an AYES affiliated school earned at least one OCP during the year, compared with 62.42% in the non AYES schools. The figures for all target populations were consistently 25% to 30% higher for AYES affiliated schools, as shown in *Table 4. Comparison of OCP Attainment, 2008-2009* (Appendix D).

Table 4. Comparison of OCP Attainment, 2008-2009.

Target Populations	Schools Affiliated with AYES (N=1,004)	Non-AYES Schools (N=10,049)
Non-Traditional	88.00%	57.63%
Ethnic Minorities	91.73%	66.72%
Students with Disabilities	83.66%	53.79%
Economically Disadvantaged	89.97%	60.16%
Overall	89.94%	62.42%

Source: CCTCMIS

Graduation Rates of 12th Grade Students –The ultimate measure of success of any career and technical education program is for the student to complete the program and graduate from high school.

We found that the graduation rates for 12th grade students were slightly higher overall (by over 4%) and for all four target populations in AYES affiliated schools. The closest comparison between the two school groups was the graduation rate for students with disabilities at AYES affiliated schools that was over 3% higher than for the non-AYES schools. The biggest differences between school categories occurred among minority students, where 80.21% graduated from AYES affiliated schools compared with 71.09% graduated from non-AYES schools, a difference of more than 9% (Appendix E).

Table 5. Comparison of Graduation Rates, 2008-2009.

Target Populations	Schools Affiliated with AYES (N=223)	Non-AYES Schools (N=2,322)
Non-Traditional	85.71%	79.71%
Ethnic Minorities	80.21%	71.09%
Students with Disabilities	56.14%	52.07%
Economically Disadvantaged	79.38%	71.44%
Overall	79.36%	74.98%

Source: CCTCMIS

CONCLUSIONS

Enrollment

AYES affiliated schools did only slightly better than non-AYES schools in enrolling students in the four target populations. For two of the four target populations (Non-Traditional and Ethnic Minorities) the difference in enrollment percentages was less than one-half percent. The biggest difference was among students with disabilities where the difference was more than 12%. The only population in which the non-AYES schools did a better job of enrolling students in the AST program was among Hispanic students (10.74% vs. 10.66%) in the AYES affiliated schools.

Performance

AYES affiliated schools outperformed non-AYES schools only in the areas of retention from the prior year and OCPs. In the retention area, the AYES affiliated schools retained over 4% more students from the 2007-2008 school year than did the non-AYES schools. In the area of occupational completion points, the AYES affiliated schools were consistently 25% to 30% higher than for the non-AYES schools. The greatest difference in OCPs between the two school groups was among students with disabilities and economically disadvantaged students, where AYES affiliated schools' performance was nearly 30% above that of non-AYES schools.

The overall graduation and dropout rates for AYES affiliated schools was only slightly better than for non-AYES schools (less than 2%). However, the dropout rate for ethnic minorities in the AYES affiliated schools was much better (1.42%) than for the non-AYES schools (6.24%).

RECOMMENDATIONS

- AYES affiliated schools should improve their outreach to students in the targeted populations to increase enrollments from those segments of the student population. Program directors need to

ensure that counselors are aware of the greater performance rates of those programs and encourage counselors to advise students about the opportunities available in the AYES programs.

- Non-AYES schools should strive to improve performance in the areas of retention and OCP attainment so they are comparable with AYES affiliated schools.
- Non-AYES schools should consider affiliation with AYES.

APPENDICES

Appendix A – Enrollment Tables

Appendix B – Performance Table – Retention from 2007-2008

Appendix C – Performance Table – Dropout Rates

Appendix D – Performance Table – OCP Attainment

Appendix E – Performance Table – Graduation Rates

COMPARISON OF ENROLLMENTS IN SCHOOLS WITH SECONDARY AUTOMOTIVE SERVICE TECHNOLOGY PROGRAMS
2008-2009

For Schools Reporting Enrollments and Graduations in Automotive Service Technology (AST) Programs
By Automotive Youth Educational Systems (AYES) Affiliation

Student Characteristics	All Schools with AST Programs			Schools Affiliated with AYES			Schools Not Affiliated with AYES		
	Total Enrolled	Enrolled in AST	Pctg	Total Enrolled	Enrolled in AST	Pctg	Total Enrolled	Enrolled in AST	Pctg
By Gender									
Female	54,357	836	1.54%	4,207	50	1.19%	50,150	786	1.57%
Male	60,106	10,217	17.00%	4,867	954	19.60%	55,239	9,263	16.77%
Totals	114,463	11,053	9.66%	9,074	1,004	11.06%	105,389	10,049	9.54%
By Ethnicity									
Native American	390	35	8.97%	27	4	14.81%	363	31	8.54%
Asian	2,179	130	5.97%	204	17	8.33%	1,975	113	5.72%
African American	27,545	1,949	7.08%	1,829	139	7.60%	25,716	1,810	7.04%
Hispanic	26,246	2,817	10.73%	2,213	236	10.66%	24,033	2,581	10.74%
Multi-Racial	2,993	248	8.29%	283	27	9.54%	2,710	221	8.15%
Total Minorities	59,353	5,179	8.73%	4,556	423	9.28%	54,797	4,756	8.68%
Caucasian	55,110	5,874	10.66%	4,518	581	12.86%	50,592	5,293	10.46%
Totals, By Ethnic Category	114,463	11,053	9.66%	9,074	1,004	11.06%	105,389	10,049	9.54%
Students With Disabilities	15,883	739	4.65%	1,259	202	16.04%	14,624	537	3.67%
Economically Disadvantaged	55,690	1,735	3.12%	3,518	379	10.77%	52,172	1,356	2.60%

Source: CCTCMIS

COMPARISON OF RETENTION RATES IN SCHOOLS WITH SELECTED AUTOMOTIVE SERVICE TECHNOLOGY PROGRAMS

2008-2009

For Schools Reporting Enrollments and Graduations in Automotive Service Technology (AST) Programs

By Automotive Youth Educational Systems (AYES) Affiliation

Student Characteristics	(N=121)			(N=12)			(N=109)		
	Enrolled in AST 2008- 2009	Enrolled in AST 2007- 2008	Pctg	Enrolled in AST 2008- 2009	Enrolled in AST 2007- 2008	Pctg	Enrolled in AST 2008- 2009	Enrolled in AST 2007- 2008	Pctg
By Gender									
Female	836	139	16.63%	50	13	26.00%	786	126	16.03%
Male	10,217	3,072	30.07%	954	329	34.49%	9,263	2,743	29.61%
Totals	11,053	3,211	29.05%	1,004	342	34.06%	10,049	2,869	28.55%
By Ethnicity									
Native American	35	10	28.57%	4	1	25.00%	31	9	29.03%
Asian	130	45	34.62%	17	5	29.41%	113	40	35.40%
African American	1,949	376	19.29%	139	40	28.78%	1,810	336	18.56%
Hispanic	2,817	898	31.88%	236	71	30.08%	2,581	827	32.04%
Mixed Race	248	69	27.82%	27	11	40.74%	221	58	26.24%
Total Minorities	5,179	1,398	26.99%	423	128	30.26%	4,756	1,270	26.70%
Caucasian	5,874	1,813	30.86%	581	214	36.83%	5,293	1,599	30.21%
Totals, By Ethnic Category	11,053	3,211	29.05%	1,004	342	34.06%	10,049	2,869	28.55%
Students With Disabilities	2,126	619	29.12%	202	82	40.59%	1,924	537	27.91%
Economically Disadvantaged	5,495	1,448	26.35%	379	92	24.27%	5,116	1,356	26.51%

Source: CCTCMIS

COMPARISON OF DROPOUT RATES OF STUDENTS IN SELECTED AUTOMOTIVE EDUCATION PROGRAMS
2008-2009

For Schools Reporting Enrollments and Graduations in Automotive Education Programs
By Automotive Youth Educational Systems (AYES) Affiliation

Student Characteristics	All Schools with A/E Programs			Schools Affiliated with AYES			Schools Not Affiliated with AYES		
	Enrolled in AST	Dropouts 2008-2009	Pctg	Enrolled in AST	Dropouts 2008-2009	Pctg	Enrolled in AST	Dropouts 2008-2009	Pctg
By Gender									
Female	836	33	3.95%	50	1	2.00%	786	32	4.07%
Male	10,217	484	4.74%	954	33	3.46%	9,263	451	4.87%
Totals	11,053	517	4.68%	1,004	34	3.39%	10,049	483	4.81%
By Ethnicity									
Native American	35	2	5.71%	4	0	0.00%	31	2	6.45%
Asian	130	2	1.54%	17	0	0.00%	113	2	1.77%
African American	1,949	126	6.46%	139	2	1.44%	1,810	124	6.85%
Hispanic	2,817	161	5.72%	236	4	1.69%	2,581	157	6.08%
Mixed Race	248	12	4.84%	27	0	0.00%	221	12	5.43%
Total Minorities	5,179	303	5.85%	423	6	1.42%	4,756	297	6.24%
Caucasian	5,874	214	3.64%	581	28	4.82%	5,293	186	3.51%
Totals, By Ethnic Category	11,053	517	4.68%	1,004	34	3.39%	10,049	483	4.81%
Students With Disabilities	2,126	211	9.92%	202	20	9.90%	1,924	191	9.93%
Economically Disadvantaged	5,495	301	5.48%	379	10	2.64%	5,116	291	5.69%

Source: CCTCMIS

COMPARISON OF STUDENTS EARNING OCPs IN SCHOOLS WITH SELECTED AUTOMOTIVE EDUCATION PROGRAMS

2008-2009

For Schools Reporting Enrollments and Graduations in Automotive Education Programs

By Automotive Youth Educational Systems (AYES) Affiliation

Student Characteristics	All Schools with A/E Programs			Schools Affiliated with AYES			Schools Not Affiliated with AYES		
	Enrolled in AST	Number Earned OCP	Pctg Earned OCP	Enrolled in AST	Number Earned OCP	Pctg Earned OCP	Enrolled in AST	Number Earned OCP	Pctg Earned OCP
By Gender									
Female	836	497	59.45%	50	44	88.00%	786	453	57.63%
Male	10,217	6,679	65.37%	954	859	90.04%	9,263	5,820	62.83%
Totals	11,053	7,176	64.92%	1,004	903	89.94%	10,049	6,273	62.42%
By Ethnicity									
Native American	35	23	65.71%	4	3	75.00%	31	20	64.52%
Asian	130	100	76.92%	17	15	88.24%	113	85	75.22%
African American	1,949	1,205	61.83%	139	127	91.37%	1,810	1,078	59.56%
Hispanic	2,817	2,067	73.38%	236	217	91.95%	2,581	1,850	71.68%
Mixed Race	248	166	66.94%	27	26	96.30%	221	140	63.35%
Total Minorities	5,179	3,561	68.76%	423	388	91.73%	4,756	3,173	66.72%
Caucasian	5,874	3,615	61.54%	581	515	88.64%	5,293	3,100	58.57%
Totals, By Ethnic Category	11,053	7,176	64.92%	1,004	903	89.94%	10,049	6,273	62.42%
Students With Disabilities									
Students With Disabilities	2,126	1,102	51.83%	202	169	83.66%	1,924	1,035	53.79%
Economically Disadvantaged									
Economically Disadvantaged	5,495	3,260	59.33%	379	341	89.97%	5,116	3,078	60.16%

Source: CCTCMIS

COMPARISON OF GRADUATION RATES OF SENIORS IN SELECTED AUTOMOTIVE EDUCATION PROGRAMS
2008-2009

For Schools Reporting Enrollments and Graduations in Automotive Education Programs
By Automotive Youth Educational Systems (AYES) Affiliation

Student Characteristics	All Schools with A/E Programs			Schools Affiliated with AYES			Schools Not Affiliated with AYES		
	Seniors Enrolled	Graduated 2008-2009	Pctg	Seniors Enrolled	Graduated 2008-2009	Pctg	Seniors Enrolled	Graduated 2008-2009	Pctg
By Gender									
Female	221	177	80.09%	14	12	85.71%	207	165	79.71%
Male	2,382	1,787	75.02%	267	211	79.03%	2,115	1,576	74.52%
Totals	2,603	1,964	75.45%	281	223	79.36%	2,322	1,741	74.98%
By Ethnicity									
Native American	7	6	85.71%	1	1	100.00%	6	5	83.33%
Asian	32	27	84.38%	4	3	75.00%	28	24	85.71%
African American	467	314	67.24%	24	16	66.67%	443	298	67.27%
Hispanic	610	448	73.44%	63	53	84.13%	547	395	72.21%
Mixed Race	66	54	81.82%	4	4	100.00%	62	50	80.65%
Total Minorities	1,182	849	71.83%	96	77	80.21%	1,086	772	71.09%
Caucasian	1,419	1,115	78.58%	185	146	78.92%	1,234	969	78.53%
Totals, By Ethnic Category	2,601	1,964	75.51%	281	223	79.36%	2,320	1,741	75.04%
Students With Disabilities	491	258	52.55%	57	32	56.14%	434	226	52.07%
Economically Disadvantaged	1,144	825	72.12%	97	77	79.38%	1,047	748	71.44%

Source: CCTCMIS