

**Los Medanos College**  
**Program Review Data for**  
**Appliance Service Technology/ Refrigeration**

Prepared by the Office of Institutional Research

August 2006

Background

This report provides the department with three-year trends on indicators on the following areas:

- Enrollment
- Productivity
- Student Success

For Vocational Education programs, data on VTEA core indicators are provided.

I. Enrollment: This section provides a three-year trend on student enrollment by headcount as of first census. Because our demographic make up is rapidly changing, figures by ethnicity are also provided.

II. Productivity: In this section, three-year trends are provided for: FTEF/FTES, FTES, Part-time FTEF, full-time FTEF, and full-time Staff. For most measures, college figures are provided for comparison purposes.

III. Student Success. This section consists of: Retention Rates, Success rates, number of students with declared major who completed 18 units or more, and number of degrees and certificates awarded. In this section, statistics by ethnicity are also provided.

**Note: ALL DATA is for the academic year (Fall and Spring only).**

Definitions for each measure are provided in the footnotes.

Data Sources: The two main sources of information are: 1. DataTel and the Research Data Warehouse. Productivity figures were provided by LMC's Business Office.

## STATISTICS

**HEADCOUNT ENROLLMENT (Unduplicated at First Census):** Student headcount in Appliance Service Technology has decreased from 161 in 2002-2003 to 111 in 2004-2005, a decrease of 47 students. When examine enrollment by ethnicity, it is observed that the proportion of Filipinos, Hispanics and Whites has increased by 3% in the last three years. Asians have decreased by 4%. The program's headcount ethnic composition enrollment generally reflects the college's headcount ethnic enrollment.

### Headcount Enrollment: Appliance Service Technology/ Refrigeration

	2002-2003		2003-2004		2004-2005		3-Year Change	
	Program	College	Program	College	Program	College	Program	College
	<b>N=161</b>	N=12946	<b>N=163</b>	N=11527	<b>N=114</b>	N=12808	<b>-47</b>	-138
							<b>-29%</b>	<b>-1%</b>
<b>Asian</b>	<b>5%</b>	5%	<b>7%</b>	6%	<b>1%</b>	6%	<b>-4%</b>	1%
<b>African American (non-Hispanic)</b>	<b>12%</b>	13%	<b>7%</b>	13%	<b>12%</b>	14%	<b>0%</b>	1%
<b>Filipino</b>	<b>8%</b>	6%	<b>4%</b>	6%	<b>11%</b>	6%	<b>3%</b>	0%
<b>Hispanic</b>	<b>26%</b>	21%	<b>32%</b>	23%	<b>29%</b>	24%	<b>3%</b>	3%
<b>American Indian/ Alaskan Native</b>	<b>1%</b>	1%	<b>1%</b>	1%	<b>0%</b>	1%	<b>-1%</b>	0%
<b>Other Non-White</b>	<b>3%</b>	3%	<b>3%</b>	3%	<b>1%</b>	2%	<b>-2%</b>	-1%
<b>Pacific Islander</b>	<b>1%</b>	1%	<b>1%</b>	1%	<b>1%</b>	1%	<b>0%</b>	0%
<b>White non-Hispanic</b>	<b>42%</b>	44%	<b>39%</b>	43%	<b>45%</b>	43%	<b>3%</b>	-1%
<b>Unknown</b>	<b>2%</b>	7%	<b>6%</b>	5%	<b>0%</b>	3%	<b>-2%</b>	-4%
<b>All Students</b>	<b>100%</b>	100%	<b>100%</b>	100%	<b>100%</b>	100%	<b>-</b>	<b>-</b>

NOTE: Percentages may not add up to 100% due to rounding.

**SEATCOUNT ENROLLMENT (Duplicated at Census):** Seatcount enrollment for Appliance Service Technology/Refrigeration decreased from 444 in 2002-2003 to 334 in 2004-2005, a decrease of 110 students for the last three years. When examined by ethnicity, seatcount enrollment increased for Filipinos by 1% and for Whites by 13%. Asians and Hispanics headcount enrollment decreased by 4%.

### Seatcount Enrollment: Appliance Service Technology/ Refrigeration

	2002-2003		2003-2004		2004-2005		3-Year Change	
	Program	College	Program	College	Program	College	Program	College
	<b>N=444</b>	N=43127	<b>N=426</b>	N=40792	<b>N=334</b>	N=42549	<b>-110</b>	-578
							<b>-25%</b>	<b>-1%</b>
<b>Asian</b>	<b>6%</b>	5%	<b>6%</b>	6%	<b>2%</b>	6%	<b>-4%</b>	1%
<b>African American (non-Hispanic)</b>	<b>10%</b>	14%	<b>7%</b>	14%	<b>10%</b>	15%	<b>0%</b>	1%
<b>Filipino</b>	<b>10%</b>	6%	<b>7%</b>	6%	<b>11%</b>	6%	<b>1%</b>	0%
<b>Hispanic</b>	<b>28%</b>	20%	<b>31%</b>	22%	<b>24%</b>	24%	<b>-4%</b>	4%
<b>American Indian/ Alaskan Native</b>	<b>0%</b>	1%	<b>1%</b>	1%	<b>0%</b>	1%	<b>0%</b>	0%
<b>Other Non-White</b>	<b>4%</b>	3%	<b>4%</b>	3%	<b>1%</b>	3%	<b>-3%</b>	0%
<b>Pacific Islander</b>	<b>1%</b>	1%	<b>1%</b>	1%	<b>1%</b>	1%	<b>0%</b>	0%
<b>White non-Hispanic</b>	<b>39%</b>	43%	<b>39%</b>	43%	<b>52%</b>	43%	<b>13%</b>	0%
<b>Unknown</b>	<b>2%</b>	7%	<b>5%</b>	5%	<b>0%</b>	2%	<b>-2%</b>	-5%
<b>All Students</b>	<b>100%</b>	100%	<b>100%</b>	100%	<b>100%</b>	100%	<b>-</b>	<b>-</b>

NOTE: Percentages may not add up to 100% due to rounding.

**PRODUCTIVITY:** Productivity (FTES/FTEF) for LMC's Appliance program decreased from 19.8 in 2002-2003 to 17.0 in 2004-2005, a decrease of 2.8. LMC's productivity is higher than CCC's productivity.

FTEF decreased from 2.23 in 2002-2003 to 2.12 in 2004-2005, a decrease of .11.

**FTES/FTEF: Appliance Service Technology/ Refrigeration**

	2002-2003	2003-2004	2004-2005	Change
<b>LMC Program</b>	19.8	16.5	17.0	-2.8
<b>CCC*</b>	12.9	17.3	10.5	-2.4
<b>DVC*</b>	n/a	n/a	n/a	n/a
<b>State Average</b>				

Productivity (FTES/FTEF) is defined as the average number of FTES earned per full-time equivalent instructor. FTES is defined as 525 student contact hours, based on a 15 hour weekly course load for 2 semester at 17.5 weeks per semester (15x2x17.5=525).

\*Data obtained from COGNOS.

**FTEF: Appliance Service Technology/ Refrigeration**

	2002-2003	2003-2004	2004-2005	Change
<b>FTEF</b>	2.23	2.13	2.12	-.11

**RETENTION RATES:** The retention Rate for students in the program decreased from 87% in 2002-2003, to 86% in 2004-2005, a decrease of 1%. Yet, the retention of the program has been consistently higher than that of the college average. When examined retention rates by ethnicity, it is observed that retention rates for Asians decreased 57% and for Hispanics 12%. Retention rates for Pacific Islanders increased by 33% and for whites by 11% in the last three years.

### Retention Rates: Appliance Service Technology/ Refrigeration

	2002-2003		2003-2004		2004-2005		3-Year Change	
	Program	College	Program	College	Program	College	Program	College
		465	47,311	427	41,959	338	42,937	-127
<b>Asian</b>	<b>97%</b>	84%	<b>71%</b>	84%	<b>40%</b>	87%	<b>-57%</b>	3%
<b>African American (non-Hispanic)</b>	<b>77%</b>	73%	<b>55%</b>	73%	<b>76%</b>	72%	<b>-1%</b>	-1%
<b>Filipino</b>	<b>98%</b>	84%	<b>100%</b>	84%	<b>94%</b>	82%	<b>-4%</b>	-2%
<b>Hispanic</b>	<b>93%</b>	82%	<b>85%</b>	81%	<b>81%</b>	82%	<b>-12%</b>	0%
<b>American Indian/ Alaskan Native</b>	<b>0%</b>	80%	<b>100%</b>	84%	-	81%	-	1%
<b>Other Non-White</b>	<b>88%</b>	81%	<b>94%</b>	80%	<b>100%</b>	79%	<b>12%</b>	-2%
<b>Pacific Islander</b>	<b>67%</b>	81%	<b>100%</b>	82%	<b>100%</b>	80%	<b>33%</b>	-1%
<b>White Non-Hispanic</b>	<b>80%</b>	84%	<b>83%</b>	85%	<b>91%</b>	84%	<b>11%</b>	0%
<b>Unknown</b>	<b>100%</b>	84%	<b>95%</b>	81%	-	83%	-	-1%
<b>All Students</b>	<b>87%</b>	82%	<b>83%</b>	82%	<b>86%</b>	82%	<b>-1%</b>	0%
<b>State Average</b>		83%		83%		83%		0%

**DEFINITION:** Student is retained in the course to end of term. A, B, C, D, F, CR, NC, I grade notations.

**MEASUREMENT:** Percent of students retained in courses out of total enrolled in courses. The retention rate is calculated by dividing the numerator (number of students with A, B, C, D, F, CR, NC, I) by the denominator (number of students with A, B, C, D, F, CR, NC, W, I).

**SUCCESS RATES:** The success rate for the program has increased from 74% in 2002-2003 to 82% in 2004-2005, an increase of 8%. Success rate for the program is higher than the college average. When examining success rate by ethnicity, the success rate for Asians decreased from 90% in 2002-2003, to 40% in 2004-2005, a decrease of 50%. The Success rate for African-American students increased from 60% in 2002-2003 to 76% in 2004-2005, a 16% increase. The success rate for Filipinos has increased 9%, and for whites 15%.

### Success Rates: Appliance Service Technology/ Refrigeration

	2002-2003		2003-2004		2004-2005		3-Year Change	
	Program	College	Program	College	Program	College	Program	College
	465	47,311	427	41,959	338	42,937	-127	-4,374
Asian	90%	71%	67%	72%	40%	74%	-50%	3%
African American (non-Hispanic)	60%	51%	48%	51%	76%	50%	16%	-1%
Filipino	85%	70%	86%	71%	94%	70%	9%	0%
Hispanic	76%	65%	75%	66%	71%	66%	-5%	1%
American Indian/Alaskan Native	0%	69%	80%	70%	-	64%	-	-5%
Other Non-White	81%	61%	89%	65%	100%	65%	19%	4%
Pacific Islander	33%	63%	100%	61%	0%	61%	-33%	-2%
White Non-Hispanic	73%	72%	75%	74%	88%	72%	15%	0%
Unknown	80%	69%	90%	66%	-	67%	-	-2%
All Students	74%	67%	75%	68%	82%	67%	8%	0%
State Average		67%		67%		67%		0%

**DEFINITION:** Student succeeds in the course to end of term. A, B, C, CR grade notations.

**MEASUREMENT:** Percent of students successful in courses out of total enrolled in courses. The success rate is calculated by dividing the numerator (number of students with A, B, C, CR) by the denominator (number of students with A, B, C, D, F, CR, NC, W, I).

**NUMBER OF STUDENTS WITH DELCARED MAJOR WHO COMPLETED 18 UNTS OR MORE:**  
 The number of students with Appliance Service Technology as their major with 18 units or more has increased from 21 in 2002-2003 to 27 in 2004-2005, an increase of 6 students.

**Number of Students with Declared Major who Completed 18 Units or More:  
 Appliance Service Technology/ Refrigeration**

	2002-2003	2003-2004	2004-2005	3-Year Change
	<b>N=21</b>	<b>N=42</b>	<b>N=27</b>	<b>+6</b>
<b>Asian</b>	10%	2%	0%	-10%
<b>African American (non-Hispanic)</b>	10%	0%	4%	-6%
<b>Filipino</b>	14%	17%	20%	6%
<b>Hispanic</b>	29%	33%	24%	-5%
<b>American Indian/ Alaskan Native</b>	0%	0%	0%	0%
<b>Other Non-White</b>	0%	2%	0%	0%
<b>Pacific Islander</b>	0%	0%	0%	0%
<b>White Non-Hispanic</b>	33%	41%	48%	15%
<b>Unknown</b>	5%	5%	4%	-1%
<b>All Students</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>-</b>

NOTE: Percentages may not add up to 100% due to rounding.

**NUMBER OF DEGREES AND CERTIFICATES:** About four Associate degrees have been awarded in the last three years. In terms of certificates, 6 certificates are awarded per year, except for 2003-2004. That year 11 certificates were awarded.

**Number of Degrees and Certificates: Appliance Service Technology/ Refrigeration**

	2002-2003	2003-2004	2004-2005	3-Year Change
<b>Degrees</b>	1	2	1	0
<b>Certificates</b>	6	11	6	0

## VTEA Core Indicators for: Appliance Services Technology

CORE INDICATORS	2003-2004		2004-2005		2005-2006	
	College	Percentage above or below State Level	College	Percentage above or below State Level	College	Percentage above or below State Level
Core 1. <b>Achievement</b>	95.73	16.97	81.25	1.49	84.33	4.57
Core 2. <b>Completions</b>	38.46	-21.36	64.29	3.49	29.41	-31.41
Core 3a. <b>Employment</b>	84.62	1.43	64.29	-18.90	64.71	-18.48
Core 3b. <b>Employment Retention</b>	90.91	8.16	88.89	N/A	54.55	-28.30
Core 4a <b>Nontraditional Participation</b>	N/R	N/R	N/R	N/R	N/R	N/R
Core 4b. <b>Nontraditional completion</b>	N/R	N/R	N/R	N/R	N/R	N/R

Data obtained from Chancellor Office VTEA reports.

### DEFINITIONS

**Indicator One: Skill Attainment** – GPA of at least 2.0 on Forms and Grade C & Above on all other reports. Indicator *One* uses enrollments in Apprenticeship, Advanced Occupational or Clearly Occupational courses (coded with SAM Priority codes A-C). Students may be enrolled in more than one program area and may be included in more than one population grouping.

**Indicator Two: Completions** – Certificates, Degrees and Transfers  
Indicator *Two* measures completions for vocational student "Leavers and Completers." Receipt of a certificate or degree or enrollment in a California four year public University with or without a degree is considered a completion. Military enrollment was not available for this cohort and was removed from all cohorts on three year presentations for the 2003-04 reports.

**Indicator Three: Placement and Retention**  
Indicator *Three* measures *Placement* as UI covered employment or continuation at CSU/UC and *Retention* as three consecutive quarters in UI covered employment for vocational student "Leavers and Completers" in their first year after college. Students found continuing at UC or CSU are considered placed but are removed prior to calculations for retention. Retention is based solely on UI Employed Leavers and Completers.

Military enrollment and federal government employment, although available in previous years, were not available for this cohort. Placement status using military and federal employment was removed from all cohorts on three year presentations for the 2005-06 reports.

**Indicator Four: Equity - Training Leading to Nontraditional Employment**  
Indicator *Four*, Participation, measures the participation of students in 2002-03 vocational courses (SAM code A –D) leading to employment where either gender is less than 25% of those employed using 1990 Census data.

Indicator *Four*, Completion, measures Completion of vocational student "Leavers and Completers" in training leading to employment where either gender is less than 25% of those employed using 1990 Census data.