#### Arapahoe Community College Institutional Effectiveness and Environmental Scan June, 2003

#### Prepared by the Office of Enrollment Management and Institutional Research Lin Claussen, Suzanne Larsh, Margaret Puryear

#### **Table of Contents**

Executive Summary and Highlig	hts						<u>Page</u> 2-6
ACC Report Card (a trend report)							7-13
Average Age, Market Penetratic Applicant Yield Rate, Retention	on Rate, I						
rates, Probation & Suspension r							
Financial Aid awards, % non-tra							
Detailed Reports and Analyses							
ACC Ethnic-Minority rate and Ac	ge Trend	S					15-16
ACC General Demographics							17
Applicant Yield Rate							18
Degrees Granted by Program							19-22
							23-24
FTE by site and mode-of-delive	ry						25-28
Graduate Employment Status si	urvey and	d Empl	oyer surv	ey result	s (VE1	35)	29-31
Headcount, Unduplicated							32
High School Conversion Rates							33
Jumpstart Analysis							34
Market Penetration by Zipcode		•	•	•			35
Retention and Attrition in-seme							36-37
Retention and Attrition in-seme	ster rate	by sub	oject area				38-39
Student Satisfaction Survey and	I Analysis	S.					40-50
Successful Retention & Registra	ition Tim	e Anal	ysis				51-52
Environmental Scan							
Age Trends Analysis							54-57
CCHE Final Annualized FTE for	all Colora	ado Sta	te Colleg	es			58-60
Demographic Information			0				
Population by Race							61
Age/Sex/Income							62
Household Income							63
Educational Attainment							64
Occupational Projections 1998-2	2008						
Top 50 Occupations by		Growth	Rate				65-66
Top Jobs Requiring an	Associate	e's Deg	ree				67
The 30 most Declining				ige			68
The 30 most Declining							69
Resources							70-74

#### **Executive Summary and Highlights**

The purpose of this document is to provide data, trends, and informative reports that support fact-based strategic decision-making. The following summary is a listing of "highlights" that have been gleaned from the body of this document by the Office of Enrollment Management and Institutional Research. Users of this document should not limit themselves to relying solely on the below listing for useful information about the College and its environment, but rather, should review the detailed data to draw their own conclusions.

Beside each bulleted highlight is a reference to the source of information. Each source/report is included in this document and listed alphabetically in the Table of Contents.

If you have any comments or suggestions concerning this document, feedback is always welcome.

Respectfully submitted, Lin Claussen, Director Enrollment Mgmt & Institutional Research

Strengths:

- ACC reached an all-time high of 12,638 in unduplicated headcount for 02-03. (Ref: ACC Report Card; Headcount, Unduplicated chart)
- ACC's ethnic-minority student make up (percentage) exceeds the service area percentage by almost 6%. (Ref: ACC Report Card, ACC Ethnic-Minority rate and Age Trends)
- ACC grew 8.6% in reportable FTE for 02-03, the highest FTE in the past four years. (Ref: ACC Report Card)
- The Fall-to-Spring Retention rates increased to 61% for 02-03 the highest rate over the past five years. (Ref: ACC Report Card)
- The Jumpstart Program (first semester early intervention program) continues to prove successful with a Fall to Spring retention rate of 73%. (Ref: Jumpstart Retention Rates)
- Financial Aid Applicants have increased by 21% and Financial Aid Award Amounts have increased by 33% for 02-03 compared to the previous year. (Ref: ACC Report Card)

• Our High School Conversion rate, defined as # of recent HS graduates from service area high schools enrolled fall semester at ACC, increased to 7% for the HS class of 02 compared to 6% for HS Class 01. (Ref: High School Conversion Rates chart).

Weaknesses:

- The high school co-enroll population has declined by 38% over the past two years. (Ref: ACC Report Card)
- ACC's Fall-to-Fall retention rate for both ethnic-minority and overall population did not meet CCCS benchmarks (ACC rates = 47-48%, benchmark = 55+%). (Ref: ACC Report Card – Cohort based)
- Although our ethnic-minority graduation rates meet CCCS benchmarks, our overall graduation rates did not make benchmark (ACC grad rate = 20.3%, benchmark = 21%). (Ref: ACC Report Card Cohort based)
- The Applicant Yield Rate (# of applicants who subsequently enrolled) has declined from 65.3% in FY98-99 to 56.3% in FY02-03. (Ref: ACC Report Card; Applicant Yield Rate chart).

#### Informational:

- Over the last two years our proportion of full-time students has increased and average age has slightly decreased; in addition, our HS conversion rate has slightly increased which indicates an increase in our "traditional" student population. (Ref: ACC Report Card)
- Our non-resident FTE has declined by 50% over the last 5 years while the resident FTE (state reimbursable) FTE has increased by 17% over the same period. (Ref: ACC Report Card)
- Age trends over the next 10 years will affect two broad age groups: age group 15 to 29 and age group 50-74. Therefore, a two-pronged approach to strategic planning is recommended – preparing for an increasingly large group of "traditional age" students and an increasingly large group of older community members. (Ref: ACC Ethnic-Minority Rate and Age Trends Report; Age Trend Analysis)
- Based on Fall 2003 numbers, 66% of our students are pursuing a certificate or higher; 28% of our students come to ACC already possessing a certificate or higher; 48% of our students are employed full-time, 61% of our students are female. (Ref: ACC General Demographics).

- Based on Fall 02-03 data and analysis, 284 or 28% of the new students who had placements scores and enrolled were considered "doubly-deficient" (did not meet the cut score in two or more placement areas). "Doubly-deficient" students performed below students who were not doubly deficient indicating that ACC is justified in pursuing more intrusive measures, such as mandated placement, orientations, and/or academic success courses, to help this population succeed. (Ref: Doubly Deficient Data)
- Site/Mode comparison highlights (Ref: FTE By Site And Mode-of-Delivery) -Overall Comparison between FY02-03 and the previous year: Hybrid course enrollments increased by 225%, web-based enrollments increased by 37%, Clinics have increased by 215%, Main campus FTE increased by 11%, Art & Design Center increased 10%, Triad increased 15%, UCC increased 46%, CCConline increased 46%, and ACConline increased by 33%. Independent Studies increased by 621%/ Noncountable FTE increased by 51%. The Colorado Computer Center decreased in FTE by 70%. Telecourse decreased by 31%. Computer labs, Flex, and self-paced have decreased by 13%, 16% and 37% respectively.

**Summer 02-03:** Hybrid jumped from 5 FTE to 32.6 FTE (552% increase); Telecourse decreased by 14%; Web-based FTE went up 45%; Main campus FTE went up 9%; Art & Design Center went up 6%; Colorado Computer Center went down 83%; Triad went down 24%; UCC went down 39%; CCConline courses increased by 34%.

**Fall 02-03:** Hybrid courses increased by 82%, web-based courses increased by 47%, FTE at Triad increased by 29%, FTE at UCC increased by 45%, CCConline FTE increased by 51%.

**Spring 02-03:** Triad FTE increased by 10%, UCC FTE increased by 76%, CCConline continued its growth with a 49% increase, ACConline increased by 18%, an explosive growth in hybrid of 341%, telecourse decreased by 44%, computer labs and flex decreased by 44% and 16% respectively.

- Of the 01-02 vocational graduates who responded to the follow-up Graduate Employment Status Survey, 66% were employed in a job related to their ACC training and 93% agreed that the ACC program met their educational goals. (Ref: ACC report card; Graduate Employment Status Survey).
- Of the 01-02 employers who responded to the Graduate Employment Status Survey, 89% rated employees who graduated from ACC at Good or Excellent Overall Competency. Employers ranked student's 'written communication skills' as the lowest student ability and 'Ability to work with others' was ranked as highest student ability. (ref: Graduate Employment Status Survey -Employer Responses)

- The 02-03 Market Penetration Rate for credit courses = 2.29% (of those 18 years old and above) with the highest headcount from the Highlands Ranch area. The 02-03 Market Penetration Rate for non-credit courses = 1.18% (of those 6 years old and above) with the highest headcount also from Highlands Ranch. (ref: Market Penetration Rate chart)
- The In-semester persistence rate for traditional-delivery courses = 81.5%. Using 81.5% as a benchmark, Hybrid did quite well with an 80.5% persistence rate. Flex, Telecourse, Individualized computer lab and self-paced courses had the lowest persistence rates in the 60th percentile range. ACConline courses out-perform CCConline courses with persistence rates of 76% and 74.1% respectively; in addition, CCConline had an astounding 52% drop for refund rate compared to the next highest of 38% in coop courses. (ref: Insemester Persistence and Attrition Rates charts)
- Based on an analysis of Fall 2002 registrants, students who registered late for courses were not found to perform significantly poorer than students who registered on-time. (Ref: Successful Retention and Registration Time Analysis)
- Of the students surveyed, 43% prefer evening courses, 34% prefer morning, 11% prefer afternoons and 1% prefer weekends. (Ref: Student Satisfaction Survey results)
- Of the students surveyed, the most common ways they heard about ACC was via the mailed class schedule, a teacher or counselor, a friend or other student. (Ref: Student Satisfaction Survey results)
- Of the students surveyed, 80% rate their ACC experience as good or very good. (Ref: Student Satisfaction Survey results)
- ACC grew by 8.6% in FY02-03 FTE which ranked it 6th of 13 in growth among Colorado Community Colleges. (Ref: CCHE Final Annualized FTE report found in Environmental Scan section)
- The ACC Service Area, as of the 2000 census, has a lower proportion of 18-24 year olds than compared to Colorado and the United States, and a higher proportion of ages between 35-54. This difference may go toward explaining why ACC may not always be in sync with other area community colleges in enrollment trends. (Ref: Age/Sex/Income Demographics in Environmental Scan section)
- ACC Service area is comparatively very affluent with greater means to afford higher education. (Ref: Age/Sex/Income Demographics and Household Income in the Environmental Scan section)

- The ACC Service area is highly educated, which, when combined with income and age demographics, supports the theory that the ACC service area "traditional" college age students may tend to go to "traditional" universities. In addition, with 21% of ACC's student population holding an Associate degree or higher, we can conclude that ACC continues to serve a population that values continued education and the upgrading of knowledge & skills. (Ref: Educational Attainment in the Environmental Scan section; ACC General Demographics)
- ACC may have growth opportunities by creating 2+2 transfer programs in Systems Analysis and Computer Engineering which have a high projected growth rate through 2008 and, for which it appears, none of our sister community colleges offer programs in this area. (Ref: Top 50 Occupations in the Environmental Scan section)
- Even with the recent downturn in CIS enrollments, the need for Computer Support Specialists is projected to have profound growth through 2008, followed by Registered Nurses and Paralegals. (Ref: Top Jobs Requiring an Associate's Degree) The need for Word Processors & Typists is expected to decrease through 2008. (Ref: The 30 Most Declining Occupations)

# ACC Report Card

### Office of Enrollment Management and Institutional Research

#### Compiled by Lin Claussen

Arapahoe Community College (ACC) draws its role and mission from Colorado Revised Statute, 23-60-201, which states:

-There is hereby established a state system of community and technical colleges which shall be under the management and jurisdiction of the state board for community colleges and occupational education. Each college shall be a two-year institution offering a broad range of general, personal, vocational, and technical education programs. No college shall impose admission requirements upon any student. The objects of the community and technical colleges shall be to provide educational programs to fill the occupational needs of youth and adults in technical and vocational fields, to provide two-year transfer educational programs to qualify students for admission to the junior year at other colleges and universities, and to provide a broad range of programs of personal and vocational education for adults."

	1	Agency reported to	INFO. SOURCE	98-99	99-00	00-01	01-02	02-03	Benchmark	Benchmark Source	Benchmark met?				
		Internal	ALLUNDUP.fex	00-00	00-00	00-01	01-02	02-00	Denominark	oouroo					
	Mean	info.	by M.P.				32	31	n/a						
Average Age	Median	Internal info.	ALLUNDUP.fex				28	26	n/a						
		Internal	by M.P. ALLUNDUP.fex				20	20	II/a						
	Mode	info.	by M.P.				21	20	n/a						
Market Penetration Rate	credit courses pulling ages 18 years and older	Internal info.	report by M.P. via fex & census					2.29%	not established						
(detail attached)	NON-credit courses pulling ages 6 years and older		report by M.P. via fex & census					1.18%	not established						
	Full-time	NCA	accrt_yr L.C.	4025	3913	3896	4223	4880	n/a						
	FT % of Unduplicated HC			32%	32%	31%	35%	39%	n/a			50% 40% 30% 20% 10% 0%	•	+ +	
	Part-time	NCA	accrt_yr L.C.	8522	8631	8633	7976	7758	n/a						
Enrollment Trend by headcount	PT % of Unduplicated HC			68%	68%	69%	65%	61%	n/a			70% 65% 60%	+		
licaucount	Minority		accrt_yr L.C.	1746	1851	1890	1853	1948	n/a						
	% of Unduplicated HC less "other"			15%	16%	17%	16%	16%	10.1%	Service area Ethnic Minority Makeup, Census 2000	Yes	18% 17% 16% 15%			•
	Unduplicated per year	CCHE	hc_und.fex L.C.	12,549	12,547	12,532	12,199	12,638	not established			1270 1280 1280 1280 1280 1280 1280 1280 128	• • • •		

		Agency								Benchmark	Benchmark			
			INFO. SOURCE	98-99	99-00	00-01	01-02	02-03	Benchmark		met?			
	In-state (state-		final FTE report											
	subsidized)	CCHE	to CCHE	3832	3814.8	3799.7	4079.77	4500.23	n/a					
	Out-of-state (not		final FTE report											
	subsidized)	CCHE	to CCHE	375.7	324.9	291.4	238.35	187.59	n/a					
	TOTAL "Reportable" Annualized FTE	Internal Info.	Internal Calc	4207.7	4139.7	4091.1	4318.2	4687.82	n/a			400 400 400 400 400 400 400 400 400 400		<b>*</b>
	% growth compared									System				
Annualized FTE	to previous year									College				
	(Reportable FTE)				(-1.6%)	(-1.2%)	5.60%	8.60%	10.7%	average	No			
	flagged as non- countable - not reported to CCHE (excludes NCTI)	Internal info.	Mode-site summary converted to annualized	13	98	70	35	53	n/a					
	Non-countable as a % of (countable + non-countable) not including NCTI			less than 1%	2.3%	1.7%	less than 1%	1.1%	n/a					
Annual Total "countable"				.,.	,	,		,						
Credits Hrs (Res and Non-			final FTE report											
res)		CCHE	to CCHE	126,231.7	124,190.2	122,727.5	129,540.5	140,634.8	n/a					
Annual "non-countable"			final FTE report											
credits including NCTI		CCHE	to CCHE					44,841.0	n/a					
Prospect Yield rate					Und	er construct	ion							
	Applicants (totaled across 3 terms)		app2enrl.fex M.P.	12,412	14,404	13,626	12,785	13,807						
Applicant Yield rate	# of new applicants who enrolled (totaled across 3 terms)		app2enrl.fex M.P.	8,101	8135	8111	7375	7771						
	# of new applicants who enrolled / # of new applicants			65%	57%	60%	58%	56%					<b>*</b>	

		Agency								Benchmark	Benchmark				
	I.		INFO. SOURCE	98-99	99-00	00-01	01-02	02-03	Benchmark	Source	met?				
	In-semester Completer or Persistence Yield rate (pass min. one class with D or above-did not drop, withd or fail all courses)		Persistence & attrition rate by mode, M.P.					80.1%							
Retention Rates	Fall to Spring (Retained or graduated) - raw number		M.P. Termenrl.fex,P ROBGRAD.fex, Excel, Access	4048 + 224 grads of 7492	4066 + 188 grads of 7514	4006 +150 grads of 7447		4575 + 206 grads of 7871							
	Fall to Spring (Retained or graduated) % of total Fall enrollment			57%	57%	56%	59%	61%					-		
Degrees/Certificate Granted	certificates	CCHE IPEDS	Grad_fin.fex FTP to excel	836	747	728	845	811							
	Vocational degrees & certificates						647								
	# of respondents to survey	CCHE	Graduate Employment Status Survey administered by the Career Ctr				339								
VOCATIONAL Graduate Placement Rate	# respondents employed in a job related to ACC training	CCHE					244 (66%)								
	# respondents employed in a job NOT related to ACC training	CCHE					61 (18%)								
	# of academic probation students		Focus,Excel, Access, M.P.	194	204	195	231	258							
	Probation student retention rate			42.80%	42.20%	59%	44.20%	42.20%				80.00% 60.00% 40.00% 20.00%		*	-
Academic Probation/Suspension rates	# of students placed on academic suspension			57	67	95	82	80							
	Suspension student retention rate			21.10%	17.90%	69.50%	23.20%	25.00%				80.00% 60.00% 40.00% 20.00%			

		Agency								Benchmark	Benchmark			
	r.	reported to	INFO. SOURCE	98-99	99-00	00-01	01-02	02-03	Benchmark	Source	met?			
	Unduplicated headcount		hs <u>by</u> rfex L.C.	919	1247	1315	989	816	not established			ſ	1	
	annualized FTE		hs <u>by</u> r.fex L.C.	166	222	248	209	168	not established				4	4
High School conversion rates (for high schools	% of Recent High Graduates who enrolled for Fall Semester						6%	7%						
	Amount of Financial Aid Awarded		Fin. Aid. J.C.	4,532,424	4,984,214	4,953,639	6,595,291	8,556,900						
	Financial Aid Applicants		Fin. Aid. J.C.	2,871	3,059	3,220	3,889	4,210						
	# of students awarded Financial Aid		Fin. Aid. J.C.	1864	1878	1977	2425	2430						-+
% of class sections offered at non-traditional times (meet other than between 8am-		0000	010				CAN	0.01		Set by CCCS via	Vee			
4:30pm, M-F)		CCCS	QIS				61%	61%	38.8%		Yes			
	From Graduate survey	CCCS	QIS				98%	99%		Set by CCCS via QIS	Yes			

			The f	ollowin	g data a	re coho	rt-based	ł			
Cohort defini	ition: first-time to cc	llege, full-time			•				is cohort which	n is tracked by	v Colorado
Commission	of Higher Education	n for QIS (Qua	lity Indicator I	Report).							
		Agency	Info.	1996	1997	1998	1999	2000		Benchmark	Benchmark
		reported to	Source	cohort	cohort	cohort	cohort	cohort	Benchmark	Source	met?
Cohorts	# of students in cohort	supplied by CCHE	Cohort Grad Rates - QIS	355	295	295	285	241	n/a		
VUIUIIS	# in Minority	supplied by	cohort grad		230	230	200	271	- II/a		
	Cohort	CCHE	rates - QIS	61	46	42	44	30	n/a		
	# from cohort	00nii		<b>V</b> I					-		
	who graduated or transferred in	supplied by	Cohort								
	3.25 years or	CCHE	Grad Rates -								
	less		QIS	91	46	60			n/a		
	Percent of										
	graduates										
	(graduation		Internal							set by CCCS	
<b>A</b> .I(	rate)		Calc	25.6%	15.6%	20.3%			21%	via QIS	No
Cohort Graduation Rates	cohort # who did not graduate	supplied by CCHE	Cohort Grad Rates QIS	264	249	235			n/a		
	minority cohort # who										
	graduated in 3.25 years or	supplied by CCHE	Cohort Grad Rates								
	less		QIS	14	1	8			n/a		
	Minority Cohort		Internal							set by CCCS	
	graduation rate		Calc	23.0%	2.2%	19.0%			12.9	via QIS	Yes

		Agency	Info. Source	1996 aabart	1997 achart	1998 aabart	1999	2000	Benchmark	Benchmark Source	Benchmark met?
	Retained or	reported to	Source	cohort	cohort	cohort	cohort	cohort	Denchinark	Source	metr
	graduated at ACC one year	provided by CCHE	Cohort Success								
	after entry		Rates, QIS			135	154	116	n/a		
	ACC Retention Rate		Internal Calc			45.8%	54.0%	48.1%	55.10%	set by CCCS via QIS	No
	Transferred	provided by CCHE	Cohort Success Rates, QIS			37	25	29	n/a		
	Overall Cum Retention Rate (includes	provided by CCHE	Cohort Success							set by CCCS	
	transfers)		Rates, QIS			58.3%	62.8%	60.2%	64.1%	via QIS	No
Cohort Retention	Not graduated nor retained	provided by CCHE	Cohort Success Rates, QIS			123	106	96	n/a		
Rates	Minority student graduate or retained at ACC one year after entry					17	24	14	n/a		
	ACC Minority Retention Rate					40.5%	54.5%	46.7%	55.6%	set by CCCS via QIS	No
	Minority Transfer					4	5	2	n/a		
	Overall Cum Minority Retention Rate					50.0%	65.9%	53.3%	67.2%	set by CCCS via QIS	No
	Minorities Not graduated nor retained					21	15	14	n/a		

# Detailed Reports

#### ACC Ethnic-Minority Student Rates and Age Trends

#### ACC Minority Student Rates

Historically, ACC Environmental Scan data have been pulled from census data for a tricounty area: Arapahoe, Douglas, and Jefferson (figure 1).

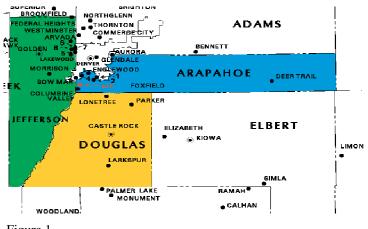


Figure 1

However, ACC's service area as defined in statute (C.R.S. 23-60-201) is not limited to nor encompasses the entire tri-county area (see figure 2). The 2001 ACC Environmental Scan Report (ESR) reaches conclusions about ACC's future student make-up based on the tri-county data. In an effort to affirm or refute the ethnic-minority rate data provided in the ESR, Ms. Margaret Puryear, Office of Institutional Research, used new census bureau techniques to pull ethnic-minority information for ACC's true service area as outlined below (figure 2).

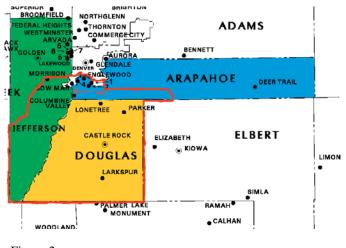


Figure 2

The resulting difference was significant.

**Does ACC serve its service-area ethnic-minority residents?** Based on the tri-county area, ACC fell short in service to both the Black and Hispanic populations. (see Tables 1 & 2).

Table 1

- - - - -

Three County Totals							
US Census 2000 Percent							
Asian	3.0%						
Black or African American	3.7%						
Hispanic or Latino	10.0%						
American Indian	0.7%						
Total	17.4%						

Table 2

Arapahoe Community College						
ACC Students year 2001-2002	Percent					
Asian Students	4.0%					
Black or African American Students	2.0%					
Hispanic or Latino Students	8.0%					
American Indian Students	1.0%					
Total	15.0%					

The percent of minorities in the three-county area totaled 17.4% as shown in Table 1. Pulling the data for ACC's true service area we see that the actual percent of minority residents totals 10.1% (Table 3). Taking the service-area data and comparing with ACC minority student rates (Tables 3 & 4); we can conclude that, in fact, ACC has served more ethnic-minority students in each category than are indicated by the service area population data.

Table 3							
Service Area for Arapahoe Community College							
US Census 2000	Percent						
Asian	2.2%						
Black or African American	1.0%						
Hispanic or Latino	6.4%						
American Indian	0.5%						
Total	10.1%						

Table	4
-------	---

Arapahoe Community College						
ACC Students year 2001-2002 Percent						
Asian Students	4.0%					
Black or African American Students	2.0%					
Hispanic or Latino Students	8.0%					
American Indian Students	1.0%					
Total	15.0%					

#### Age Trends

The 2001 Environmental Scan Report stated: "we can predict that over the next ten years or so the populations for Arapahoe, Douglas, and Jefferson Counties reaching the ages of 60 and over will be far greater than the portions of the population who reach the ages of 20 or more."

Should ACC shift focus from "traditional" age students to providing more academic opportunities and services for students age 60 and over? Dr. Suzanne Larsh, Office of Institutional Research, performed a separate age analysis based on population data from 2003 and projected for 2013 collected from the Colorado Department of Local Affairs. Since age data and projections are provided by county only, the tri-county area was used for this analysis. In summary, the tri-county area will experience an overall population increase by the year 2013. This increase affects two broad age groups that may be considered potential ACC student population pools. The first group aged 15 to 29 will increase proportionally by a modest 1.91%, but this increase corresponds with a quantitative increase of 71,796 people. The second group, aged 50 to 74, will increase by 44,062, a proportional increase of 6.45%. While this older group's proportional increase is greater, the quantitative increase is comparatively less than the increase in the younger age group. Therefore, a two-pronged approach to strategic planning based on this population trend analysis is apparent, prepare to provide courses for an increasingly large group of "traditional age" prospective students, and provide courses and services for the group of older community members that will be proportionally larger than currently experienced in the tri-county region.

#### ACC General Demographics based on Fall 2003 Enrollments

Asian, Pac Island

Black. Non-His

Indian/Native

White, Non-His

Associate Deg

Masters/Doctoral

Full-time

Part-time

Unknown

Arapahoe

Denver

Douglas

Jefferson

Other

Out-of-State

Unemployed

Bachelor

Certificate

High School

Not specified

Hispanic

Other

#### 03F: 7884 Enrolled Students Degree Goal **Degree Goal at** AA, AS, A ACC Unknown 34% 27% AA, AS, AGS 2098 AAS 2354 Certificate 719 Unknown 2713 7884 Ethnic Origin Ethnic Origin 1% Asian, Pac Island 288 Black, Non-His 184 Hispanic 640 Indian/Native 97 White, Non-His 6233 Other 442 7884 Education **Education Completed** Completed 6% Associate Deg 485 15% Bachelor 1156 Certificate 525 Masters/Doctoral 25 0% 4478 High School Not specified 1215 7884 Unknown Gender Gender 1% Females 4862 Males 2979 Unknown 43 Females 7884 61 Employment Employment Full-time 3841 23% 48% Part-time 1857 Unemployed 1825 Unknown 361 24 7884 Admit Type Admit Type New student 4654 ansfer Readmitt 352 37% New stude Transfer 2878 59% 7884 County 1% County Arapahoe 2838 8% Denver 1104 36% 18% Douglas 1813 Jefferson 1419

23%

14%

Out-of-State

Other

79

631

7884

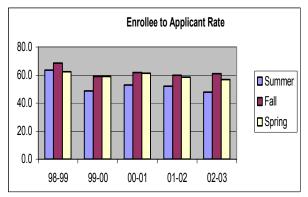
### Applicant Yield Rate

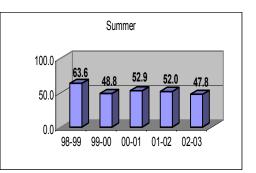
#### Compiled by Margaret Puryear, Office of Institutional Research

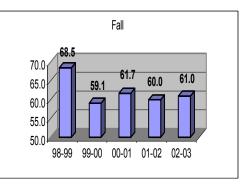
Percentage of students who applied and subsequently enrolled.

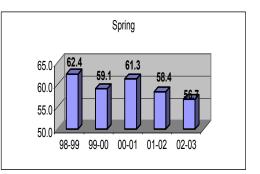
	98-99	99-00	00-01	01-02	02-03
Summer	63.6	48.8	52.9	52.0	47.8
Fall	68.5	59.1	61.7	60.0	61.0
Spring	62.4	59.1	61.3	58.4	56.7

Date	Semester	Applied	Enrolled	Percent
Jun-98	99m	2613	1663	63.6%
Aug-98	99f	5265	3608	68.5%
Jan-99	99s	4534	2830	62.4%
FY99 Total		12412	8101	65.3%
Jun-99	00m	3487	1686	48.4%
Aug-99	00f	5984	3534	59.1%
Jan-00	00s	4933	2915	59.1%
FY00 Total		14404	8135	56.5%
Jun-00	01m	3126	1653	52.9%
Aug-00	01f	5913	3647	61.7%
Jan-00	01s	4587	2811	61.3%
FY01 Total		13626	8111	59.5%
Jun-02	02m	2850	1483	52.0%
Aug-02	02f	5414	3251	60.0%
Jan-02	02s	4521	2641	58.4%
FY02 Total		12785	7375	57.7%
Jun-02	03m	3466	1658	47.8%
Aug-02	03f	5776	3525	61.0%
Jan-03	03S	4565	2588	56.7%
FY03 Total		13807	7771	56.3%









The following numbers for							
Degrees/Certificates awarded are based							
on ACC Data. Numbers will not always							
match CCHE information.		# of awards					
Degree	Major	97-98	98-99	99-00	00-01	01-02	02-03
ASSOCIATE OF APPLIED SCIENCE	ACCOUNTING	13	6	10	15	9	10
ASSOCIATE OF APPLIED SCIENCE	ADMINISTRATIVE ASSISTANT	7	1	4	2	2	5
ASSOCIATE OF APPLIED SCIENCE	ARCHITECTURAL TECHNOLOGY	5	3	2	8	6	3
ASSOCIATE OF APPLIED SCIENCE	AUTOMOTIVE SERVICE TECH-ASEP	0	0	1	0	0	0
ASSOCIATE OF APPLIED SCIENCE	AUTOMOTIVE SERIVCE TECH-ATEC	0	0	0	0	0	0
ASSOCIATE OF APPLIED SCIENCE	AUTOMOTIVE SERVICE TECHNOLOGY	15	14	9	12	4	6
ASSOCIATE OF APPLIED SCIENCE	BUSINESS ADMINISTRATION	13	8	6	14	16	21
ASSOCIATE OF APPLIED SCIENCE	COMMUNICATION TECHNOLOGY	4	4	7	6	6	4
ASSOCIATE OF APPLIED SCIENCE	COMPUTER INFORMATION SYSTEMS	13	10	17	21	10	9
ASSOCIATE OF APPLIED SCIENCE	COMPUTER NETWORK TECHNOLOGY	0	0	0	0	3	14
ASSOCIATE OF APPLIED SCIENCE	CONSTRUCTION SUPERVISION	1	1	0	0	2	1
ASSOCIATE OF APPLIED SCIENCE	CONVERGENT TECHNOLOGIES	0	0	0	0	0	7
ASSOCIATE OF APPLIED SCIENCE	CRIMINAL JUSTICE	11	20	7	6	8	3
	ELECTRONICS ENGINEERING						
ASSOCIATE OF APPLIED SCIENCE	TECHNOLOGY	7	3	3	5	2	5
ASSOCIATE OF APPLIED SCIENCE	ENVIRONMENTAL & WASTE MGMT	0	0	0	1	0	0
ASSOCIATE OF APPLIED SCIENCE	ENVIRONMENTAL & SAFETY TECH	2	0	3	0	2	0
ASSOCIATE OF APPLIED SCIENCE	FINANCIAL SERVICES	0	0	0	0	0	1
ASSOCIATE OF APPLIED SCIENCE	GRAPHIC DESIGN & ILLUSTRATION	13	18	14	11	17	12
ASSOCIATE OF APPLIED SCIENCE	HEALTH INFORMATION TECHNOLOGY	4	2	9	8	9	9
ASSOCIATE OF APPLIED SCIENCE	TRAVEL & HOSPITALITY MGMT	4	10	9	4	0	0
ASSOCIATE OF APPLIED SCIENCE	INTERIOR DESIGN	47	39	37	34	37	31
ASSOCIATE OF APPLIED SCIENCE	INTERNATIONAL BUSINESS	3	0	0	0	0	0
ASSOCIATE OF APPLIED SCIENCE	INVESTMENTS	0	1	0	1	0	0
ASSOCIATE OF APPLIED SCIENCE	LEGAL SECRETARY	1	0	2	0	0	0
ASSOCIATE OF APPLIED SCIENCE	MANAGEMENT	11	4	5	5	7	9
ASSOCIATE OF APPLIED SCIENCE	MARKETING	1	2	1	0	0	0
	MECHANICAL DESIGN & DRAFTING						
ASSOCIATE OF APPLIED SCIENCE	TECH	3	1	1	0	0	0

The following numbers for							
Degrees/Certificates awarded are based							
on ACC Data. Numbers will not always							
match CCHE information.		# of awards					
	MEDICAL LABORATORY						
ASSOCIATE OF APPLIED SCIENCE	TECHNOLOGY	8	4	7	2	1	5
ASSOCIATE OF APPLIED SCIENCE	MORTUARY SCIENCE	7	19	10	21	13	30
	MEDICAL OFFICE TECHNOLOGY (aka						
ASSOCIATE OF APPLIED SCIENCE	MOA)	2	5	3	2	3	2
ASSOCIATE OF APPLIED SCIENCE	NURSING	68	69	74	46	41	40
ASSOCIATE OF APPLIED SCIENCE	OCCUPATIONAL THERAPY ASST	18	9	9	7	6	0
ASSOCIATE OF APPLIED SCIENCE	PARALEGAL	19	21	10	17	21	23
ASSOCIATE OF APPLIED SCIENCE	PARAMEDIC	0	1	0	0	0	0
ASSOCIATE OF APPLIED SCIENCE	PHYSICAL THERAPIST ASSISTANT	22	31	31	20	15	10
ASSOCIATE OF APPLIED SCIENCE	PN TO RN	0	0	0	13	18	14
ASSOCIATE OF APPLIED SCIENCE	TRAVEL & TOURISM MANAGEMENT	0	0	0	1	4	1
ASSOCIATE OF ARTS		119	124	90	105	70	65
ASSOCIATE OF GENERAL STUDIES	BROADBAND	0	0	0	0	5	4
ASSOCIATE OF GENERAL STUDIES	ENGINEERING TECHNOLOGIES	0	0	0	1	0	0
ASSOCIATE OF GENERAL STUDIES		50	61	61	66	46	31
ASSOCIATE OF SCIENCE		28	18	17	17	15	22
	ADMINISTRATIVE SUPPORT						
CERTIFICATE	SPECIALIST	4	0	4	7	5	4
CERTIFICATE	ACTIVITY PROFESSIONAL TRAINING	1	0	0	0	0	4
	ARCHITECTURAL CONTRACTS &						
CERTIFICATE	MATERIALS	0	0	0	0	1	0
CERTIFICATE	ARCHITECTURAL DRAFTING	1	2	0	4	2	1
CERTIFICATE	AUTOMOTIVE SERVICE MGMT	0	1	1	2	0	0
CERTIFICATE	AUTOMOTIVE SERVICE TECHNOLOGY	1	7	2	5	3	2
CERTIFICATE	BUILDING MATERIALS	1	0	0	0	0	0
CERTIFICATE	BOOKKEEPING AND OFFICE	0	1	1	3	1	1
CERTIFICATE	BROADBAND	0	0	0	3	102	0
	BROADBAND TECHNICAL						
CERTIFICATE	MANAGEMENT	0	0	0	0	0	99
CERTIFICATE	BROADBAND DIGITAL MANAGEMENT	0	0	0	0	0	7
CERTIFICATE	BROADBAND TELEPHONY	0	0	0	0	0	8

The following numbers for							
Degrees/Certificates awarded are based							
on ACC Data. Numbers will not always							
match CCHE information.		# of awards					
CERTIFICATE	CISCO	0	0	0	3	4	1
CERTIFICATE	CLINICAL ASSISTANT	0	0	0	0	1	6
CERTIFICATE	C.N.A.	40	37	78	27	1	0
CERTIFICATE	COMMUNICATION TECHNOLOGY	0	0	0	0	0	2
CERTIFICATE	COMPUTER AIDED DRAFTING	2	1	2	11	7	8
CERTIFICATE	COMPUTER GRAPHICS	0	1	4	7	14	10
CERTIFICATE	COMPUTER PROGRAMMING	0	5	8	10	6	4
CERTIFICATE	COMPUTER TECHNICIAN	12	20	15	9	10	8
CERTIFICATE	CONTEMPORARY MANAGEMENT	0	0	0	0	25	8
CERTIFICATE	CONSTRUCTION MANAGEMENT	1	0	0	0	0	0
	EARLY CHILDHOOD PROFESSIONS						
CERTIFICATE	DIR	0	0	1	7	2	8
	EARLY CHILDHOOD PROFESSIONS						
CERTIFICATE	GROUP	0	0	5	7	9	5
CERTIFICATE	ELECTRONICS ASSEMBLER	0	0	0	0	0	3
	ELECTRONICS ENGINEERING						
CERTIFICATE	TECHNOLOGY	2	2	1	2	1	1
CERTIFICATE	EMERGENCY MEDICAL TECHNICIAN	29	2	0	0	1	1
CERTIFICATE	FIRE ACADEMY	48	82	42	0	58	26
CERTIFICATE	FINANCIAL SERVICES	0	0	0	0	0	2
CERTIFICATE	FLIGHT ATTENDANT	8	0	0	0	0	0
CERTIFICATE	GRAPHIC DESIGN & ILLUSTRATION	2	2	0	2	1	2
CERTIFICATE	HAZARDOUS MATERIALS TECH	0	0	0	1	1	0
CERTIFICATE	HUMAN SERVICE TECHNICIAN	1	0	0	0	0	0
CERTIFICATE	HUMAN RESOURCES MANAGEMENT		0	0	0	12	5
	HUMAN RESOURCES MANAGEMENT						
CERTIFICATE	SPEC	2	3	4	3	3	5
CERTIFICATE	ICD-9-CM/CPT CODING	0	0	0	13	9	7
CERTIFICATE	INTERIOR ARCHITECTURE	0	0	0	0	0	0
CERTIFICATE	INTL TRADE SPECIALIST	3	0	0	0	0	0
CERTIFICATE	INVESTMENTS	0	1	1	1	0	0
CERTIFICATE	LAW ENFORCEMENT ACADEMY	82	94	60	71	68	75
CERTIFICATE	MEDICAL ADMIN ASST	3	0	5	0	0	1

The following numbers for							
Degrees/Certificates awarded are based							
on ACC Data. Numbers will not always							
match CCHE information.		# of awards					
CERTIFICATE	MARKETING	1	1	1	0	0	0
CERTIFICATE	MARKETING SPECIALIST	0	0	0	1	0	0
	MGMT FOR PROF & TECH						
CERTIFICATE	EMPLOYEES	2	0	1	3	4	1
CERTIFICATE	MECHANICAL DRAFTING	1	0	0	0	0	0
CERTIFICATE	MICROCOMPUTER SPECIALIST	10	8	9	9	8	4
CERTIFICATE	MEDICAL OFFICE TECHNOLOGY	3	5	2	0	1	1
CERTIFICATE	NETWORK SPECIALIST	0	0	0	0	2	0
CERTIFICATE	ORGANIZATIONAL BEHAVIOR	0	0	0	0	16	6
CERTIFICATE	PARALEGAL	13	20	22	18	17	15
CERTIFICATE	PHARMACY TECHNICIAN	10	6	5	14	2	19
CERTIFICATE	PHLEBOTOMY	0	0	0	0	16	18
CERTIFICATE	PROJECT MANAGEMENT	0	0	0	0	0	11
	<b>REFRIGERATION &amp; AIR</b>						
CERTIFICATE	CONDITIONING	1	3	0	0	0	0
CERTIFICATE	ENTREPRENEURSHIP	0	0	2	1	0	0
CERTIFICATE	SECRETARIAL SCIENCE	0	0	0	0	0	0
CERTIFICATE	SUPERVISORY MANAGEMENT	1	1	1	0	0	0
CERTIFICATE	SUPERVISION	0	0	0	0	23	11
	TELECOMMUNICATIONS						
	ENGINEERING	0	0	0	1	0	1
	TRAVEL MARKETING & MGMT	3	3	1	1	0	0
CERTIFICATE	TRAVEL AND TOURISM	20	19	10	11	11	9
CERTIFICATE	VENDOR SERVICE TECHNICIAN	0	Q	Q	0	Q	3
CERTIFICATE	WEB AUTHORING	0	0	0	0	0	1
TOTAL		833	836	747	728	845	811

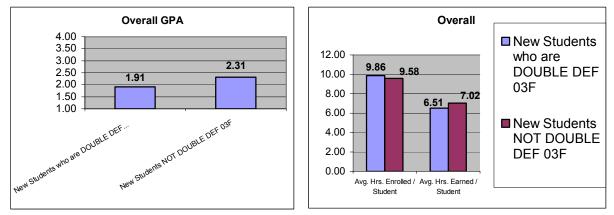
#### Doubly Deficient Report Office of Institutional Research Compiled by Margaret Puryear

**Purpose:** To determine if ACC would be justified in mandating course placement and/or Academic Success courses for students who score below cut scores (a.k.a. below college level) in two or more of the test modules: Reading, Writing, Arithmetic. The following questions were asked:

1. How many new enrolled students who took or submitted placement scores did <u>not</u> meet the cut score (college level) for <u>two or more</u> of the placement areas? **Answer:** as **highlighted** in the below table, 284 or 28% of the new students who tested and enrolled are considered "doubly-deficient".

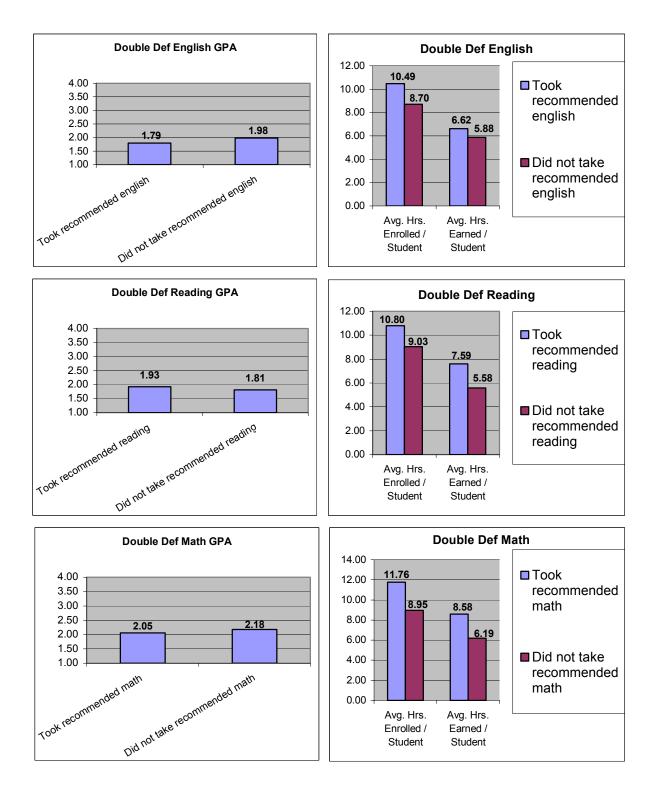
	Count	GPA	Total Hrs. Enrolled	Enrolled / Student	Total Hrs. Earned	Earned / Student
New Students That Tested	1382					
New Students That Tested and Enrolled	1011					
New Students who are DOUBLE DEF 03F	284	1.91	2800	9.86	1848	6.51
New Students NOT DOUBLE DEF 03F	727	2.31	6963	9.58	5106	7.02

2. For the doubly-deficient students found in #1, what are the average credit hours attempted, average credit hours earned and average semester GPA compared to all other new students who tested but were not doubly deficient? **Answer:** As shown in the above table and below charts, students who tested doubly-deficient performed below students who were not doubly-deficient.



3. Separate the doubly-deficient students into "those students who took the recommended remedial courses" versus "those who did not". How do the two groups compare? **Answer:** As shown in the below tables and charts, the results were mixed.

Of the Doubly Deficient - 236 Needed Remedial English												
Took recommended english	138	1.79	1447	10.49	914	6.62						
Did not take recommended english	98	1.98	853	8.70	576	5.88						
Took other than recommended english	3	1.65	40	13.33	23	7.67						
Of the Doubly Deficient - 259 Needed Remedial Reading												
Took recommended reading	123	1.93	1328	10.80	934	7.59						
Did not take recommended reading	136	1.81	1228	9.03	759	5.58						
Of the Doubly Deficient - 148 Needed Ren	nedial M	lath										
Took recommended math	62	2.05	729	11.76	532	8.58						
Did not take recommended math	86	2.18	770	8.95	532	6.19						
All enrolled 03F math tested low	394	2.23	3922	9.95	2746	6.97						



**Conclusion by Lin Claussen:** looking at the overall comparisons, ACC has initial data that demonstrates, as expected, that students who test doubly-deficient perform at a lower level than students who are not doubly-deficient; therefore, mandating placement and/or academic success courses has some justification. However, further analysis of the above data to determine significance and correlations should be done to develop a clearer picture of student performance. This will be included in Enrollment Management goals for 03-04.

				01-02 to 02-03	Site/Mode Com	parison							
		The below FTE	numbers include				PT NCTI.						
Hybrid course enrollments increased by 225	web-based en	rollments increas	ed by 37% Clinics	have increased h	v 215% Main c	ampus ETE increa	sed by 11% Art	& Design Center	rincreased 10%	Triad increased 15	UCC increase	d 46% CCConli	e increased
46%, and ACConline increased by 33%. Ind													
by 13%, 16% and 37% respectively.					,								
,,													<u> </u>
				02-03									
	02-03 ACC	02-03		Employee Dev		02-03			02-03	02-03 Misc. off-			
	Main Campus	Art & Design	Colo.Computer	Acad or Cr	Enhanced	High School	02-03	02-03 UCC		site Location			%change fro
MODEv SITE>	(AC)	Center (AD)	Center (CO)	(EC)	Labs (ED)	(HS)	Triad (TR)	(UC)	(CC)	(S1)	02-03 TOTALS	01-02 TOTALS	01-02 to 02-
FY 03													
Traditional (blank)	5190.61	900.43		7.21		25.04	180.08			178.8	6659.85	6442	
Accelerated (AC)	334.16	3.6					84.8	6.2			428.76	376.56	14
HS contract-taught at HS (C2)						13.47					13.47	6.17	
Additional 3rd party costs (C5)			2.2							131.71	133.91	76.14	76
Computer Lab (CL)	254.81						22.81	12.27			289.89	334.17	
Clinic (CN)	7.8									101.72		34.74	215
Coop/Internship (CP)	20.15						2.33			54.11	76.59	42	
Flex and open registration (FL)	107.9						1.31	0.39		1.33		124.98	-11
Hybrid (HY)	231.41	7.4					2.2	29.07		2.7		83.96	225
Individualized Computer Lab (IC)	12.56										12.56	5.46	
Independent Study (IS)	21.72	4.5					4.32			16.03	46.57	6.46	621
Multi-Media (MM)	2.8										2.8		
Other (OT)											0	1.56	
Private Lessons (PL)	22.34									2.4	24.74	20.13	23
Prior Learning (PR)										5.01	5.01	6.8	
Self-paced (SP)	77.34	66.47					5.39	0.07		0.86		237.62	-37
Telecourse (TL)	74.2										74.2	108.2	
Web based (WW)	653.71	40					6.8	2.2	381.79		1085.16	789.4	37'
Totals:	7011.51	1022.4	22.68	7.21	0	38.51	310.04	208.06	381.79	494.67	9496.87	8696.35	9
01-02 Totals:	6333.61	929.48	75.25	9.8	229.95	22.2	269.84	142.29	260.98	422.95			
% Change from 01-02 to 02-03:	11%	10%	-70%	-26%	-100%	73%	15%	46%	46%	17%			
NCTI (NC) - not included in above numbers											3028.5	2075.00	
Other non-countable FTE (are included in	ahovo numbors)										106.6	3275.02 70.71	-8 51
	above numbers/										100.0	10.11	JI
FY 02										1			
11.02													
				01-02									
	01-02 ACC	01-02 Art &		Employee Dev						01-02 Misc. off-			
	Main Campus	Design Center	Colo.Computer	Acad or Cr	Enhanced	01-02 High		01-02 UCC		site Location			
MODEv SITE>	(AC)	(AD)	Center (CO)	(EC)	Labs (ED)	School (HS)	(TR)	(UC)	Online (CC)	(S1)	01-02 TOTALS		
Traditional (blank)	4829.06			9.8	110.32	16.8							
Accelerated (AC)	211.83		16.3				59.58	1.6		87.25			
HS contract-taught at HS (C2)	0.77					5.4					6.17		
Additional 3rd party costs (C5)			4.8							71.34			
Computer Lab (CL)	310.96						10.21	13			334.17		
Clinic (CN)	9.31									25.43			
Coop/Internship (CP)	36.77	1.8					1.9			1.53			
Flex and open registration (FL)	124.14									0.84			
Hybrid (HY)	82.56							1.4			83.96		
Individualized Computer Lab (IC)	5.46										5.46		
Independent Study (IS)	5.58	0.88									6.46		
Multi-Media (MM)													
Other (OT)					L					1.56			
Private Lessons (PL)	18.59									1.54			
Prior Learning (PR)		0.4								6.4			
Self-paced (SP)	98.26	2.56	0.91		119.63		15			1.26			
Telecourse (TL)	108.2	17.9	5.46					8	250 72	53	108.2		

Web based (WW)

NCTI (NC) - not included in above numbers Other non-countable FTE (are included in above numbers)

492.12

6333.61

Totals:

17.8

929.48

5.46

75.25

9.8

229.95

22.2

259.72

260.98

8

142.29

1

269.84

5.3

422.95

789.4

8696.35

3275.02

70.71

			Summer to Sur	nmer Site/Mo	de Compariso	n				
		The below FTE	numbers inclu	de BOTH cou	ntable and no	on-countable FTE	EXCEPT NC	TI.		
Hybrid jumped from 5 FTE to 32	.6 FTE (552% inc	rease): Telecour	se decreased by	14%: Web-ba	sed FTE went	up 45%: Main can	nous FTE went	up 9%: Art	& Desian (	Center went
up 6%; Colorado Computer Cen	· · · · · · · · · · · · · · · · · · ·		•							
Summer 02-03 (03M)										%change
	ACC Main	Art & Design	Colo.Computer				Misc. off-site	03M	02M	from
MODEv SITE>	Campus (AC)	Center (AD)	Center (CO)	Triad (TR)	UCC (UC)	CCC Online (CC)	location (S1)	TOTALS	TOTALS	02M to 03M
Traditional (blank)	534.63	88.3	4.86	18.08	9.42		4.18	659.47	678.7	-3%
Accelerated (AC)	45.97							45.97	0	0%
Additional 3rd party costs (C5)							109.45	109.45	87.45	25%
Computer Lab (CL)	32.3			3.04	2.2			37.54	112.35	<b>-67</b> %
Clinic (CN)							7.49	7.49	14	-47%
Coop/Internship (CP)	5.47			0.33			27.97	33.77	4.89	591%
Flex and open registration (FL)	25.94							25.94	27.36	-5%
Hybrid (HY)	26.1	3.8					2.7	32.6	5	552%
Individualized Computer Lab (IC	4							6.44	0	0%
Independent Study (IS)	4.52	0.54						5.06	0	0%
Private Lessons (PL)	1.56							1.56	0.2	<mark>680</mark> %
Prior Learning (PR)							0.07	0.07	0	0%
Self-paced (SP)	25.61	2.4		2.79			0.66	31.46	28.82	<b>9</b> %
Telecourse (TL)	9.6							9.6	11.2	-14%
Web based (WW)	95.63	12	0.13	0.4		80.74		188.9	130.34	45%
Totals	813.77	107.04	4.99	24.64	11.62	80.74	152.52	1195.32		#DIV/0!
02M Totals	748.35	100.76	29.03	32.27	18.95	60.06	110.89		1100.31	
% Change from 02M to 03M	9%	6%	-83%	-24%	-39%	34%	38%			
NCTI (NC) - not included in abov								757.62	953	-21%
Other non-countable FTE (are in		numbore)						12.22	12.93	-21%
		inumbersj						12.22	12.30	-570
Summer 01-02 (02M)										
	ACC Main	Art & Design	Colo.Computer				Misc. off-site	02M		
MODEV SITE>	Campus (AC)	Center (AD)	Center (CO)	Triad (TR)	UCC (UC)	CCC Online (CC)		TOTALS		
Traditional (blank)	505.48	1 1	. ,	28.1	16.75		10.27	678.7		
Additional 3rd party costs (C5)	000.40	52.30	25.74	20.1	10.70		85.85	87.45		
Computer Lab (CL)	108.33		1.0	1.82	2.2		00.00	112.35		
Clinic (CN)	1.05			1.02	2.2		12.95	14		
Coop/Internship (CP)	4.68						0.21	4.89		
Flex and open registration (FL)	27.36						0.21	4.05 27.36		
Hybrid (HY)	5							21.30		
Private Lessons (PL)	J						0.2	0.2		
Prior Learning (PR)							0.2	0.2		
Self-paced (SP)	25.41	0.4		2.35			0.66	28.82		
Telecourse (TL)	11.2			2.00			0.00	11.2		
Web based (WW)	59.84		1.69			60.06	0.75	130.34		
Totals				32.27	18.95	60.06		1100.34		
i Olais.	/40.00	100.70	23.03	JL.21	10.33	00.00	110.03	1100.01		
NCTI (NC) - not included in abov	l /e numhers				953			953		
Other non-countable FTE (are in		numbore)			900			12.93		
Other Hon-Countable FIE (die II								12.33		

					Fall to F	all Site/Mod	e Compariso	n						
				below FTE numb										
Hybrid courses incre	eased by 82	2%, web-based	courses increa	sed by 47%, FTE :	at Triad increase	d by 29%, F	TE at UCC in	creased by 4	15%, CCCor	lline FTE incr	eased by 51%.			
Fall 2002-03 (03F)		ACC Main	Art & Design	Colo.Computer			High			CCConline	Misc. off-site	02F		%change from
MODEv	SITE>	Campus (AC)	Center (AD)	Center (CO)	Acad Cr (EC)	Labs (ED)	School (HS)	Triad (TR)		(CC)	location (S1)	TOTALS		02F to 03F
Traditional (blank)		2411.72	411.07	5.5	7.08		19.17	97.07	86.58		34.95	3073.14	2935.79	5%
Accelerated (AC)		124.99						46.2				171.19	118.39	45%
HS contract-taught a	at HS (C2)						6.94					6.94	2.47	181%
Additional 3rd party	costs (C5)										22.26	22.26	74.54	-70%
Computer Lab (CL)		121.31						12.64	3.8			137.75	16.39	740%
Clinic (CN)											82.56	82.56	10.4	<b>694</b> %
Coop/Internship (CP	)	6.21						1			0.14		9.35	-21%
Flex and open regist	tration (FL)	48.49						1.18	0.26			49.93	56.05	-11%
Hybrid (HY)		67.84							4.4			75.84	41.67	82%
Individualized Comp	) Lab (IC)	6.12										6.12		
Independent Study (	IS)	5.93						2.59				10.41		
Multi-Media (MM)		2.8										2.8		
Private Lessons (PL)	)	6.11										6.11	8.94	-32%
Prior Learning (PR)											1.87	1.87	1.53	22%
Self-paced (SP)		51.73						1.4	0.07		0.2		175.3	-70%
Telecourse (TL)		37.2										37.2	48.4	-23%
Web based (WW)		273.14						1.07	2.2	136.12		424.73	289.29	47%
0;	3F Totals:	3163.59	428.76		7.08		26.11	163.15	97.31	136.12	141.98	4169.6		
02	2F Totals:	2789.11	404.31	26.15	0	119.63	16.47	126.66	67.08	90.21	148.89		3788.51	10%
% Change from 0	2F to 03F:	13%	6%	-79%		-100%	59%	29%	45%	51%	-5%			
NCTI (NC) - not inclu												896.48	978.07	
Other non-countable	e FTE as fla	agged on SPE	screen ( <b>are inc</b>	luded in above n	umbers)							43.52	4.53	<mark>86</mark> 1%
Fall 01-02 (02F)														
			Art & Design	Colo.Computer	Employee Dev	Enhanced	High				Misc. off-site	02F		
MODEv	SITE>	Campus (AC)		Center (CO)	Acad Cr (EC)	Labs (ED)	School (HS)	. ,		(CC)	( )	TOTALS		
Traditional (blank)		2290.69		22.04			14		57.48		61.94			
Accelerated (AC)		86.48						30.31	1.6			118.39		
HS contract-taught a	, ,						2.47					2.47		
Additional 3rd party	costs (C5)			3.2							71.34			
Computer Lab (CL)		16.39										16.39		
Clinic (CN)		0.35									10.05			
Coop/Internship (CP		5.2						1.03			1.32			
Flex and open regist	tration (FL)										0.84			
Hybrid (HY)		41.67										41.67		
Private Lessons (PL)	.)	7.67									1.27			
Prior Learning (PR)											1.53			
Self-paced (SP)		45.97		0.91		119.63		6.45			0.6			
Telecourse (TL)		48.4										48.4		
Web based (WW)		191.08							8	90.21		289.29		
02	2F Totals:	2789.11	404.31	26.15		119.63	16.47	126.66	67.08	90.21	148.89	3788.51		
NCTI (NC) - not inclu									978.07			978.07		
Other non-countable	e FTE ( <b>are</b>	included in ab	ove numbers)								4.53	4.53		

				Spring to Sp									
	a at Triad 2)		w FTE number							compored to	011 0 leat vo	or which in	on 100/
Highlights: 1) A 10% increas increase. 5) An explosive gro													
courses.		01541%. 0) 56	ii-paceu nas aii				reased by a	44%. O) d			Idus di iu d		se in nex
0001303.	ACC Main		Colo.Comput	EmployeeDev		High				, ,			%
	Campus	Art & Design	er Center	. Acad. Crd	Enhanced	-	Triad	UCC	CCConline	Misc Off.			change
MODEv SITE>	(AC)	Center (AD)	(CO)	(EC)	Labs (ED)	HS)	(TR)	(UC)	(CC)	site (S1)	TOTALS	TOTALS	-
Spring 02-03(03S)	(40)		(00)	(20)			(IN)	(00)	(00)		035	02S	nom
Traditional (blank)	2244.26	401.06	9.46	0.13		5.87	64.93	61.86		139.67	2927.24	2827.51	4%
Accelerated (AC)	163.2	3.6	0.40	0.10		0.01	38.6	6.2		100.07	211.6	170.72	
HS contract-taught at HS (C2)	100.2	0.0				6.53	00.0	0.2			6.53	3.7	76%
Additional 3rd party costs (C5)			2.2			0.00					2.2	1.6	38%
Computer Lab (CL)	101.2						7.13	6.27			114.6	205.43	-44%
Clinic (CN)	7.8							•		11.67	19.47	10.34	88%
Coop/Internship (CP)	8.47						1			26	35.47	27.76	
Flex and open registration (FL	33.47						0.13	0.13		1.33	35.06	41.57	-16%
Hybrid (HY)	137.47						2.2	24.67			164.34	37.29	341%
Individualized Computer Lab (I	C)										0	5.46	
Independent Study (IS)	11.27	2.07					1.73			16.03	31.1	6.46	
Other (OT)											0	1.56	-100%
Private Lessons (PL)	14.67									2.4	17.07	10.99	
Prior Learning (PR)										3.07	3.07	5.27	-42%
Self-paced (SP)		64.07					1.2				65.27	33.5	95%
Telecourse (TL)	27.4										27.4	48.6	-44%
Web based (WW)	284.94	15.8	0.53				5.33		164.93		471.53	369.77	28%
03S Totals:	3034.15	486.6	12.19	0.13	0	12.4	122.25	99.13	164.93	200.17	4131.95	3807.53	9%
02S Totals:	2796.15	424.41	20.07	9.8	110.32	5.73	110.91	56.26	110.71	163.17	3807.53		
% Change from 02S to 03S:	9%	15%	-39%	-99%	-100%	116%	10%	76%	49%	23%	9%		
NCTI (NC) - not included in a	bove number	rs						1374.4			1374.4	1343.95	2%
Other non-countable FTE					(are included	l in above n	umbers)				50.86	53.25	-4%
Spring 01-02 (02S)											02S		
	Campus (AC)	Center (AD)	Center (CO)	(EC)	Labs (ED)	School (HS	Triad (TR)	UCC (UC)	(CC)	location (S1	TOTALS		
Traditional (blank)	2032.89	412.91		9.8	110.32		65.18	44.06	1.26		2827.51		
Accelerated (AC)	125.35		14.7				29.27			1.4	170.72		
HS contract-taught at HS (C2)	0.77					2.93					3.7		
Additional 3rd party costs (C5)			1.6								1.6		
Computer Lab (CL)	186.24						8.39	10.8			205.43		
Clinic (CN)	7.91									2.43	10.34		
Coop/Internship (CP)	26.89						0.87				27.76		
Flex and open registration (FL	41.57										41.57		
Hybrid (HY)	35.89							1.4			37.29		
Individualized Computer Lab (	5.46										5.46		
Independent Study (IS)	5.58	0.88									6.46		
Other (OT)										1.56	1.56		
Private Lessons (PL)	10.92									0.07	10.99		
Prior Learning (PR)		0.4								4.87	5.27		
Self-paced (SP)	26.88	0.42					6.2				33.5		
Telecourse (TL)	48.6										48.6		
Web based (WW)	241.2	9.8	3.77				1		109.45		369.77		
TOTALS:	2796.15	424.41	20.07	9.8	110.32	5.73	110.91	56.26	110.71	163.17	3807.53		
NCTI (NC) - not included in a	hove number	re						1343.95			1343.95		
INVERTING THE INCLUSION OF A						1		10-0.33		1	10-0.00		

#### GRADUATE EMPLOYMENT STATUS SURVEY 2001-2002 Arapahoe Community College -- Career Center

#### Responses compiled by Institutional Research are highlighted in red.

We at Arapahoe Community College are interested in continually evaluating and improving our services to both the students we train and the employers we serve. Since you are one of our 2001-2002 graduates, we would very much appreciate it if you would take a few minutes to complete the following survey, and return it to us in the enclosed postage-paid envelope at your earliest convenience. *All your information will remain confidential*; it will be combined with information from other graduates in your program to provide a valuable overview of employment in your career field.

As always, the Career Center staff is available to assist you with any questions or concerns related to your career or job search. Just give us a call at 303-797-5805 if we can help -- and again, thank you for your assistance with the survey.

From list of 647 students, 339 students responded. Percentages that follow are based on the 339 respondents.

181 (53%) earned a degree151 (45%) earned a certificate7 (2%) did not respond

- 1. Which of the following <u>best</u> describes your current situation? Are you...
  - Employed full-time 215 (63%) part-time 29 (9%) in a job related to your ACC training
  - Employed full-time 49 (14%) part-time 12 (4%) in a job not related to your ACC training
  - □ Unemployed, looking for a job 21 (6%)

3.

□ Unemployed, not looking for a job 15 (4%)

Numbers do not total to 339; some people are probably some combination of responses; the question does not allow for a clear separation of responses...

#### 2. *If you are employed*, please complete the following:

Your Employer Street Address	Supervisor
Street Address	
City, State, Zip Code	
Your Job Title	
□ Full-time □ Part-time	
Your Salary (before taxes)	Hourly      Monthly
Average hourly wage: \$18.06 Std. De Minimum: \$5.40 Maximum: \$50.0	
Have you been continuously em	ployed since graduating from ACC?
□ Yes 265 (78%) □	No 63 (19%) No response: 11 (3%)
	n one job, or if you were employed before you graduated)
Are you continuing your educati	on at this time?

□ Yes 125 (37%) □ No 209 (62%) No response: 4 (1%)

- Are you active duty military? □ Yes 5 (1%) □ No 323 (99%)
  □ Full-Time 3 □ Part-Time 4 (Not sure of response rate for this question; wording of Yes/No/FT/PT choices confusing....)
  - 5. Would you say that the skills and education you received at ACC helped you to get a job, or helped you in your current job?

□ Yes 277 (82%) □ No 52 (15%) No response: 10 (3%) (Double barreled question; we can't be sure what these responses really mean...)

6. Would you say that your ACC program met your educational goals (was it what you expected?)

 $\Box$  Yes 315 (93%)  $\Box$  No 16 (5%) No response: 8 (2%) (And again... we can't be sure what these responses really mean....)

## 7. To continue evaluations of our educational programs, may we contact your employer regarding your training for the job?

□ Yes 164 (48%) □ No 169 (50%) No response: 6 (2%)

\_\_\_\_.

Your Signature

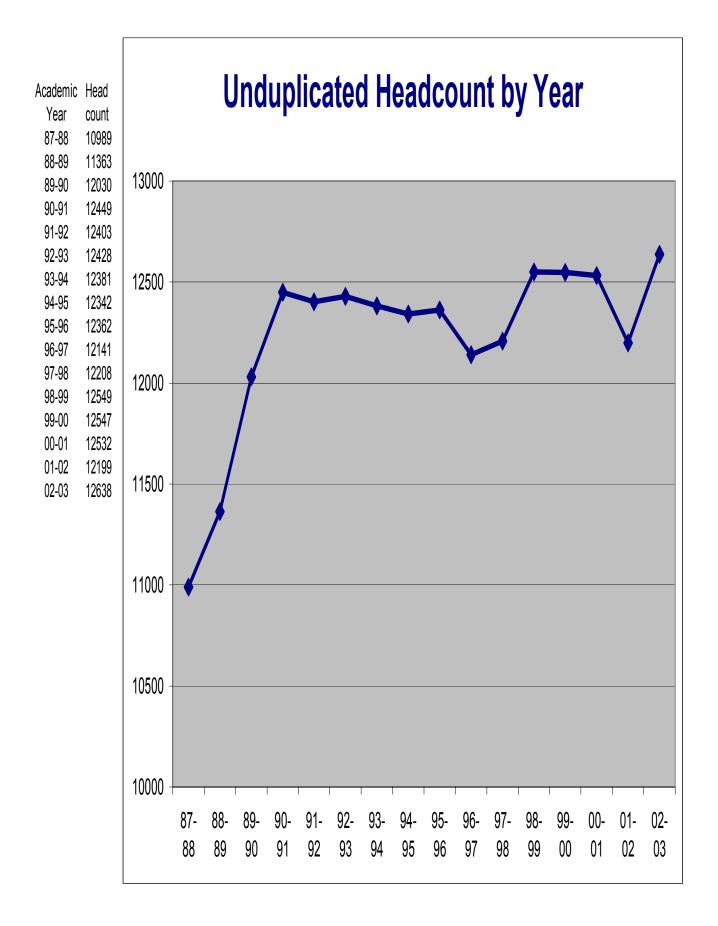
		TECH	
<u>VE 135 FY02 (1) Student Majors</u>	<u>N</u>	EMERGENCY MEDICAL	
ACCOUNTING	7	TECHNICIAN	1
ADMINISTRATIVE ASSISTANT	1	FIRE ACADEMY	13
ADMINISTRATIVE SUPPORT		GRAPHIC DESIGN &	
SPECIALIST	3	ILLUSTRATION	11
ARCHITECTURAL CONTRACTS &		HEALTH INFORMATION TECH	6
MATERIALS	1	HUMAN RESOURCES MGMT	5
ARCHITECTURAL DRAFTING	2	ICD-9-CM/CPT CODING	5
ARCHITECTURAL TECH	3	INTERIOR DESIGN	29
BROADBAND TECHNICAL MGMT	49	LAW ENFORCEMENT ACADEMY	26
BUSINESS	1	MEDICAL LABORATORY TECH	1
BUSINESS ADMINISTRATION	8	MICROCOMPUTER SPECIALIST	5
CISCO	2	MORTUARY SCIENCE	8
CLINICAL ASSISTANT	1	NURSING	33
COMMUNICATION TECH	4	OCCUPATIONAL THERAPY ASST	3
COMPUTER AIDED DRAFTING	3	ORGANIZATIONAL BEHAVIOR	2
COMPUTER GRAPHICS	6	PARALEGAL	24
COMPUTER INFORMATION		PHARMACY TECHNICIAN	2
SYSTEMS	6	PHLEBOTOMY	7
COMPUTER NETWORK TECH	2	PHYSICAL THERAPIST	'
COMPUTER PROGRAMMING	3	ASSISTANT	8
COMPUTER TECHNICIAN	5	PN TO RN	9
CONSTRUCTION SUPERVISION	2	SUPERVISION	6
CONTEMPORARY MGMT	6	TRAVEL & TOURISM MGMT	3
CRIMINAL JUSTICE	5	TRAVEL AND TOURISM	6
EARLY CHILDHOOD			0
PROFESSIONS	4	TOTAL	339
ELECTRONICS ENGINEERING	2		000

## VE 135 FY02 (1)EMPLOYER RESPONSESPlease rate your employee (1 through 5 with 5 representing the highest/best rating)

	Oral	Written			Ability to		
	Communi-	Communi-	Technical	Professional-	work with	Problem	Overall
	cation	cation	Literacy	ism	others	Solving	Competency
Mean	4.17	4.03	4.14	4.25	4.44	4.16	4.22
Standard Deviation	0.66	0.84	0.77	0.85	0.81	0.76	0.63
Minimum	3	2	2	2	2	2	3
Maximum	5	5	5	5	5	5	5
Count	64	63	64	64	64	64	64
Poor	1 0	0	0	0	0	0	0
Needs Improvement 2	2 0	3 (5%)	1 (2%)	3 (5%)	2 (3%)	1 (2%)	0
Competent (		12 (19%)	12 (18%)	8 (12%)	7 (11%)	11 (17%)	7 (11%)
Good 4		28 (44%)	28 (44%)	23 (36%)	16 (25%)	29 (45%)	36 (56%)
Excellent &	· /	20 (32%)	23 (36%)	30 (47%)	39 (61%)	23 (36%)	21 (33%)
		<u> </u>					
Ranked Averages:	Written Commun	ication	4.03				
(lowest to highest)	Technical Literac		4.14				
(	Problem Solving	J	4.16				
	Oral Communica	tion	4.17				
	Overall Compete		4.22				
	Professionalism	noy	4.22				
	1 10123310110113111		4.4J				

4.44

Ability to work with others



						Se	ervice Ar	ea High Sc	:hool C	onversio	on Rates								
Note: Grad #'s pulled from CDE website		HS Class of 97 HS Class of 98				HS Class of 99			HS Class of 00			HS Class of 01			HS Class of 02				
		Graduates	Enrolled Fall 97	Conversion Rate (Enrolled/Gr	Graduates	Enrolled Fall 98	Conversion Rate (Enrolled/Gr	Graduates	Enrolled Fall 99	Conversion Rate (Enrolled/Gr	Graduates	Enrolled Fall 00	Conversion Rate (Enrolled/Gr	Graduates	Enrolled Fall 01	Conversion Rate (Enrolled/Gr		Enrolled Fall 02	Conversion Rate (Enrolled/Gr
	District	Completers	(98F)	ads)	Completers	(99F)	ads)	Completers	(00F)	ads)	Completers	(01F)	ads)	Completers	(02F)	ads)	Completers	(03F)	ads)
Arapahoe, Heritage,																			
Littleton, Littleton Options	Littleton 6	1030	127	12%	1113	82	7%	1097	112	. 10%	1091	82	8%	1159	107	9%	1223	99	8%
Chaparral, DC Oakes, Douglas Cty, Highlando																			
	Douglas Cty RE1	1178	126	11%	1294	110	9%	1403	94	7%	1510	92	6%	1722	101	6%	1898	142	. 7%
Columbine, Conifer, Dakota	Part of Jefferson Cty R1 (pull grad rates by school)	not available	101	n/a	not available	103	n/a	not available	106	n/a	1456	75	5%	1372	70	5%	1451	96	5 7%
	Part of Cherry Creek 5 (pull grad rates by school)	not available	28	n/a	not available	24	n/a	not available	23	n/a	827	· 29	4%	799	27	3%	860	17	2%
Englewood,																			
Colorado's Finest	Englewood1	241	22	9%	261	26	10%	265	14	5%	256	23	9%	298	22	7%	290	23	8%
Sheridan	Sheridan2	79	13	16%	70	3	4%	82	1	9%	108	1	1%	128	6	5%	76	3	4%
Total Service Area			417			348			356		5248			5478			5798		
Other	Other		202			272			216	Ì		226			210			312	
dates used in HS_grads								<b>F-II 4000</b>			Fall 0000								
term date 1	Fall 1997 (98F) 199609				Fall 1998 (99F) 199709			Fall 1999 (00F) 199809			Fall 2000 (01F) 199909			Fall 2001 (02F) 200009			Fall 2002 (03F) 200109		
date 2	199708				199808			199908			200008			200003			200103		

#### Jumpstart Retention Rates Office of Institutional Research Compiled by Margaret Puryear

No shading indicates Original Cohort numbers Shading indicates in-semester numbers

Jumpstart	03F	#	%	03S	#	%
Original Cohort		560	100%		560	100%
Original Cohort Success Rate GPA => 2.0		367	66%		279	50%
Enrolled for Semester		560	100%		407	73%
Number with Semester GPA < 2.0		193	34%		128	31%
Semester Success rate GPA =>2		367	66%		279	69%
Average Semester GPA		2 21			2 30	

Jumpstart: Full or part time, new student, entry term and enroll term = 0xM/0xF,Report Flag RT25C=J

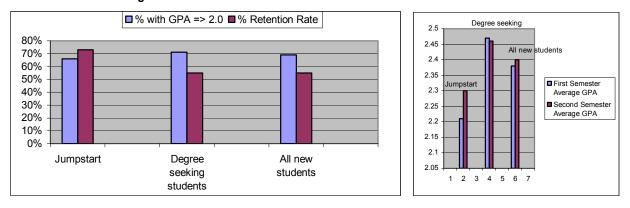
"Standard" DEGREE SEEKING	03F	#	%	03S	#	%
Original Cohort		1272	100%		1272	100%
Original Cohort Success Rate GPA=> 2.0		907	71%		498	39%
Enrolled for Semester		1272	100%		694	55%
Number with Semester GPA < 2.0		365	29%		196	28%
Semester Success rate GPA =>2		907	71%		498	72%
Average Semester GPA		2.47			2.46	

Standard: Full or part time, new student, entry term and enroll term = 0xM/0xF, degree seeking

"Standard" DEGREE NOT CONSIDERED	03F	#	%	03S	#	%	
Original Cohort		1565	100%		1565	100%	
Original Cohort Success Rate GPA=> 2.0		1083	69%		612	39%	
Enrolled for Semester		1565	100%		867	55%	
Number with Semester GPA < 2.0		482	31%		255	29%	
Semester Success rate GPA =>2		1083	69%		612	71%	
Average Semester GPA		2.38			2.40		Fall to Spg GPA improved by .02 or .8%

Standard: Full or part time, new student, entry term and enroll term = 0xM/0xF, degree not considered

Summary	Jumpstart	Degree seeking students	All new students
% with GPA => 2.0	66%	71%	69%
% Retention Rate	73%	55%	55%
First Semester Average GPA	2.21	2.47	2.38
Second Semester Average GPA	2.30	2.46	2.40



**Conclusion:** Although first-semester success rates for Jumpstart students, measured by semester GPA statistics, were poorer than the comparison groups, the retention rate was 18% higher than the comparison groups. In addition, the second semester performance for Jumpstart students improved at a greater rate than the comparison groups. I conclude, based on this initial information, that the Jumpstart Program continues to be successful. Lin Claussen.

Fall to Spg GPA improved by .09 or 4%.

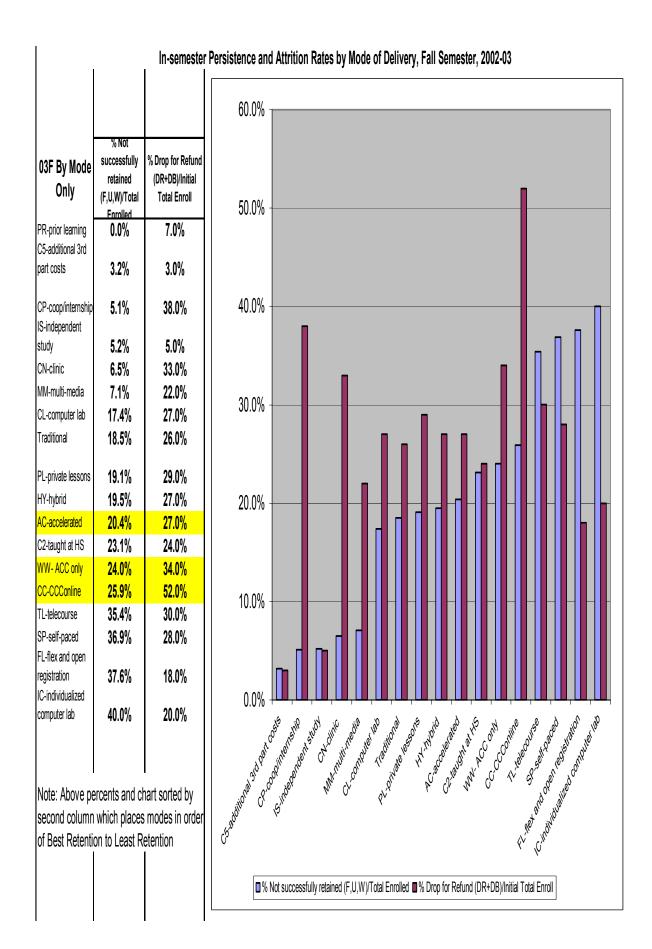
## Market Penetration Rate - FY 02 - 03 Office of Institutional Research Compiled by Margaret Puryear

Highlights: The Market penetration rate for credit courses = 2.29% (of those 18 years old and above) with the highest headcount from the Highlands Ranch area. The Market Penetration rate for non-credit courses = 1.18% (of those 6 years old and above) with the highest headcount also from Highlands Ranch.

Zip Code Area	General Location	Number of people - 6 years old and above 2000 Census	# of Students enrolled in non- credit	% Market Penetration	Number of people - 18 years old and above 2000 Census	# of Students enrolled in credit crs'	% Market Penetration
80104	Castle Rock	26850	98	0.36%	20919	427	2.04%
80110	Englewood/Sheridan	40492	337	0.83%	33757	621	1.84%
80111	Greenwood Village	24222	333	1.37%	18281	313	1.71%
80112	Castlewood	20203	299	1.48%	15715	315	2.00%
80116	Parker	3545	20	0.56%	2787	60	2.15%
80118	Larkspur	3787	5	0.13%	3015	31	1.03%
80120	Littleton	26861	651	2.42%	22155	717	3.24%
80121	Littleton/GrnWd Vill.	16950	320	1.89%	13461	291	2.16%
80122	Southglenn	29681	571	1.92%	23129	593	2.56%
80123	BowMar	38522	775	2.01%	31444	838	2.67%
<b>80124</b> /80130	Lonetree	68203	447	0.66%	8821	500	5.67%
80125	Roxborough	4899	160	3.27%	3934	146	3.71%
<b>80126</b> /80129	Highlands Ranch	73102	847	1.16%	46199	1033	2.24%
80127	Littleton	35437	610	1.72%	26374	575	2.18%
80128	Columbine	31447	552	1.76%	24519	662	2.70%
80134	Stonegate/Pinery	26819	142	0.53%	20057	567	2.83%
80135	W. of Castle Rock	3433	25	0.73%	2759	58	2.10%
80236	Den/Sheridan/Englewood	14673	54	0.37%	12111	162	1.34%
80138	Parker	18162	50	0.28%	14052	291	2.07%
80235	Denver	6561	29	0.44%	5530	89	1.61%
80425	So. Jefferson Co.	160	0	0.00%	133	6	4.51%
80433	Jefferson Co.	7665	15	0.20%	6104	45	0.74%
80465	So. Jefferson Co.	13892	35	0.25%	10998	113	1.03%
80470	So. Jefferson Co.	3166	2	0.06%	2541	9	0.35%
Totals		538732	6377	1.18%	368795	8462	2.29%

The total counts for Zip Codes 80235 and 80236 were included even though only half of the zip code area is in the service area 80129 and 80130 numbers are included in the totals of the zip code they are listed beside

	In-semester Persistence and Attrition Rates by Mode of Delivery, Fall Semester, 2002-03																		
03F By Mode Only	A	В	C	D	F	CR	I	P	S	U	W	E (Total Enrolled not including audits)	% Retained to end of Semester (sum A-D,CR,I, IP,S)/Total Enrolled	% Not successfully retained (F,U,W)/Total Enrolled	AU - Audit stude nts	DB (drop for non- pay)	DR (Student initiated drop)	Initial Total Enroll (Total Enroll + Drops)	% Drop for Refund (DR+DB)/Initial Total Enroll
Traditional	5665	3373	2040	567	1318	1	126	24	201	4	1410	14729	81.5%	18.5%	220	793	4291	19813	26%
AC-accelerated	427	212	97	20	133		6		17	7	60	979	79.6%	20.4%	3	43	325	1347	27%
C2-taught at HS	3	2	4	1	2						1	13	76.9%	23.1%	1	1	3	17	24%
C5-additional 3rd part costs	13							8	9		1	31	96.8%	3.2%			1	32	3%
CC-CCConline	234	121	77	14	98		4	7			62	617	74.1%	25.9%	1	127	538	1282	52%
CL-computer lab	395	119	54	26	69		7		15	1	60	746	82.6%	17.4%	8	38	231	1015	27%
CN-clinic	44	30	10	2	5		12	79	95	3	11	291	93.5%	6.5%	1	25	116	432	33%
CP-coop/internship	30	2	1		1		3	1			1	39	94.9%	5.1%		2	22	63	38%
FL-flex and open registration	145	42	23	5	91			27	18	3	63	417	62.4%	37.6%	60	16	77	510	18%
HY-hybrid	154	78	30	13	30		3	2			38	348	80.5%	19.5%		20	106	474	27%
IC-individualized computer lab	17	4			13			3			3	40	60.0%	40.0%			10	50	20%
IS-independent study	39	6		1	1		3	3	3		2	58	94.8%	5.2%			3	61	5%
MM-multi-media	7	3	3								1	14	92.9%	7.1%		1	3	18	22%
PL-private lessons	24	8	4	2	2						7	47	80.9%	19.1%		7	12	66	29%
PR-prior learning						13						13	100.0%	0.0%			1	14	7%
SP-self-paced	79	51	19	5	37		3	19	79	51	61	404	63.1%	36.9%	45	22	139	565	28%
TL-telecourse	32	24	25	6	35		5		1		16	144	64.6%	35.4%		12	49	205	30%
WW-ACC only	627	322	135	43	200		16	8	10	4	162	1527	76.0%	24.0%	2	120	681	2328	34%
TOTAL	7935	4397	2522	705	2035	14	188	181	448	73	1959	20457	80.1%	19.9%	341	1227	6608	28292	28%



	Retention & Attrition in-semester Rates by Subject Area - Fall 02-03 Semester											Area - Fal	1 02-03 S	emester						
						-			Offic	e of l	Instit	utiona	al Resear	rch	-		-			-
Division	PRE FIX	A	в	с	D	F	CR		IP	S	U	W	E (Total Enrolled not including audits)	··· / /	% Not successfully retained (F,U,W)/Total Enrolled	AU - Audit Students		DR (Student initiated drop)	Intial Total Enroll (Total Enroll + drops)	% Drop for Refund (DR+DB)/Initi al Total Enroll.
AHSS	AAA	49	12	10	5	13		-		-	-	8	97	78.4%	21.6%		4	21	122	20%
AHSS	ANT	56	20	7	2	8				1		10	104	82.7%	17.3%		11	24	139	25%
AHSS	ART	381	156	64	20	51		6	1			59	738	85.1%	14.9%	54	43	280	1061	30%
AHSS	ASL		5	8	4							2	19	89.5%	10.5%		3	14	36	47%
AHSS	ECP	98	42	14	8	19			1			14	196	83.2%	16.8%		14	78	288	32%
AHSS	EDU	36	3	3	1	5		1	2			3	54	85.2%	14.8%		5	25	84	36%
AHSS	ENG	357	391	323	83	238		10		1		255	1658	70.3%	29.7%	5	81	424	2163	23%
AHSS	ESL	2	14	5		3						7	31	67.7%	32.3%		7	11	49	37%
AHSS	FRE	18	11	5		4				1		8	47	74.5%	25.5%	3	7	37	91	48%
AHSS	GDI	149	84	24	10	23	2	1				15	308	87.7%	12.3%	6	15	64	387	20%
AHSS	GEO	32	39	23	8	23		3		1		11	140	75.7%	24.3%		6	32	178	21%
AHSS	HIS	164	50	53	30	61	2	12				44	416	74.8%	25.2%		23	159	598	30%
AHSS	HUM	38	24	37	8	13		4				33	157	70.7%	29.3%	1	12	62	231	32%
AHSS	IND	536	104	39	4	15		8				28	734	94.1%	5.9%		62	231	1027	29%
AHSS	JOU	4	8	7	1	2							22	90.9%	9.1%		1	11	34	35%
AHSS	JPN	27	21	9	1	1						4	63	92.1%	7.9%	2	2	15	80	21%
AHSS	LAT	10	3	3	1	1						2	20	85.0%	15.0%		1	2	23	13%
AHSS	LIT	41	33	19	2	16			1			19	131	73.3%	26.7%	2	13	64	208	37%
AHSS	MUS	112	49	21	3	26						27	238	77.7%	22.3%		15	93	346	31%
AHSS	PHI	71	82	55	14	38						38	298	74.5%	25.5%		21	135	454	34%
AHSS	POS	75	46	22	7	31		2				17	200	76.0%	24.0%		8	60	268	25%
AHSS	PSY	310	251	178	55	121		7				99	1021	78.5%	21.5%	1	74	302	1397	27%
AHSS	REA	67	93	60	26	52		1				30	329	75.1%	24.9%		14	94	437	25%
AHSS	SOC	95	109	69	17	61		•			1	36	388	74.7%	25.3%	_	25	98	511	24%
AHSS	SPA	141	53	25	7	25		2		4		36	289	78.9%	21.1%	7	23	158	470	39%
AHSS	SPE	187	142	59	13	51		1		1		57	511	78.9%	21.1%		26	133	670	24%
AHSS	THE	36	6	1	10	6		E	0			5	54	79.6%	20.4%	1	6	26	86 E46	37%
BUS	ACC	178	64	47	12	43 25	4	5	3			46	398	77.6%	22.4%	1	24 7	124	546	27%
BUS	ATC	53	74	40	10		4		10			8	214	84.6%	15.4%			51 90	272	21%
BUS BUS	AUT BTE	130 118	134	60	11	26	3	2	10	27	11	15 12	389	89.5%	10.5%		18 6	80 89	487 341	20%
BUS	BUS	188	43 132	14 63	24	18 67		2		21	11 2	40	246 517	83.3% 78.9%	16.7% 21.1%		0 39	89 165	721	28% 28%
BUS	CIS	595	132	03 81	24 26	07 145		8	23	14	2	40 104	1192	78.9%	21.1%	6	39 59	332	1583	28%
BUS	CIS	595 18	5	2	20 1	140 5		0	23	14		104	34		21.0% 17.6%	0	- 29 - 4	332 21	59	25% 42%
BUS	CNI	147	5 85	2	8	о 17		64		2 167		16	531	82.4% 93.8%	6.2%		4 23	67	59 621	42%
BUS	CSC			27 13		30		04 5		107		28	196			3	23 16	67 78		14% 32%
BUS	CTC	91 26	25 13	2	4	30 3		5 3	3			28 4	56	70.4% 87.5%	29.6% 12.5%	3	4	78 19	290 79	32% 29%
BUS	CWB	20	13	۷	4	3 7		3	3			4	29	87.5% 75.9%	12.5% 24.1%		4	19	40	29%
BUS	ECO	125	102	83	10	47		6				34	407	75.9% 80.1%			21	118	40 546	
DUG	EUU	120	IUZ	03	١V	4/		0				J4	<del>4</del> 07	00.1%	19.9%		21	١١٥	040	25%

	TOTAL	<b>A</b> 7911	<b>B</b> 4369	<b>C</b> 2554	<b>D</b> 729	<b>F</b> 2030	<b>CR</b> 15	I 201	<b>IP</b> 184	<b>S</b> 448	<b>U</b> 73	<b>W</b> 1956	E (Total Enrolled not including audits) 20470		successfully retained (F,U,W)/Total Enrolled 19.8%			DR (Student initiated drop) 6597		Refund (DR+DB)/Initi al Total Enroll. 28%
														% Retained to end of	% Not				Intial Total	% Drop for
¥¥INI	100					4			TOTA	LS FO	R THF	I	RE COLLE		00.070			4	1	2J /0
WKF WKF	FOS	4	2	3 1	1	2						1	9 5	40.0%	0.0% 60.0%	1		2	7	29%
HMSE WKF	CBT	19 4	25 2	10 3		5		2				4	66 9	86.4% 100.0%	13.6% 0.0%		1	1	78 11	15% 18%
HMSE	PHY PTA	24	21	7	5	9		ן ר				25	92	63.0%	37.0%	1	6	59 11	157	41%
HMSE	PHT	129	53	37	7	16		1		1		18	262	87.0%	13.0%	4	5	94 50	361	27%
HMSE	PHR	12	<b>F</b> A	2	-				2	5		1	22	95.5%	4.5%			5	27	19%
HMSE	PED	321	51	34	15	83	1	3	10	31	3	68	619	75.3%	24.9%	31	34	245	898	31%
HMSE	PAM	13			,-				9				22	100.0%	0.0%			1	23	4%
HMSE	NUT	7	2	1		2			_			1	13	76.9%	23.1%		6	13	32	59%
HMSE	NUR	48	115	94	18	9						9	293	93.9%	6.1%		8	66	367	20%
HMSE	NUA	34	11	4		2		3		94	3	4	155	94.2%	5.8%		25	101	281	45%
HMSE	MTE												0					1	1	100%
HMSE	MOT	112	18	12	4	19		2				18	185	80.0%	20.0%		12	101	298	38%
HMSE	MOR	46	48	7	4	6						3	114	92.1%	7.9%		10	13	137	17%
HMSE	MLT	66	37	13	10	7		3	2			9	147	89.1%	10.9%		11	42	200	27%
HMSE	MDT	1	1	-		2		-				1	5	40.0%	60.0%			1	6	17%
HMSE	MAT	517	397	279	91	179	1	5		78	52	255	1854	73.8%	26.2%	17	90	620	2564	28%
HMSE	HIT	44	24	2	2	6			4			12	94	80.9%	19.1%		7	28	129	27%
HMSE	GEY	14	9	9	1	1		דו	10			4	38	86.8%	13.2%	1	3	35	76	50%
HMSE	EMS	40	15 39	9 28	2	12		14	30 76			o 14	225	88.4%	11.6%	1	5 11	50	286	21%
HMSE	EGG	10 51	2 15	2 9	2	7		1	36			2	129	82.4% 88.4%	11.6%		2 5	9 22	28 156	39% 17%
HMSE HMSE	CHE EGG	45 10	47 2	27 2	6	9 1						25 2	160 17	78.8% 82.4%	21.3% 17.6%	I	10 2	9	283 28	43% 39%
HMSE	CAD	101	41	15 27	3	25 0	1	1	1			8	195	83.1%	16.9%	9	13 10	45 113	253	23%
HMSE	BIO	261	230	188	68	99	4	1				136	983	76.1%	23.9%	3	88	363	1434	31%
HMSE	ATH	32	1	12		1						4	50	90.0%	10.0%			1	51	2%
HMSE	AST	121	21	14	6	21						19	202	80.2%	19.8%		12	65	279	28%
HMSE	ARC	78	18	7	7	7	1	2		1		11	132	86.4%	13.6%		8	39	179	26%
HMSE	APT	23	4	2	2	5							36	86.1%	13.9%		3	4	43	16%
HMSE	ALH	242	115	49	6	27				11		33	483	87.6%	12.4%		36	229	748	35%
BUS	TRA	73	9	2	1	9		2				4	100	87.0%	13.0%		4	21	125	20%
BUS	REE	65	24	15	2	8		-				4	118	89.8%	10.2%		19	40	177	33%
BUS	NET	88	40	16	4	33		5				10	196	78.1%	21.9%		10	51	257	24%
BUS	MAR	82	35	17	5	28		-				14	181	76.8%	23.2%	1	8	54	243	26%
BUS	MAN	170	80	19	6	31		2		12		18	338	85.5%	14.5%	-	15	92	445	24%
BUS	LAW	198	4 81	39	11	4		1				22	364	90.7%	9.3%	2	2 19	93	476	24%
BUS	INV	4 20	4	1		4						4	35	01.0% 71.4%	28.6%		2	0 14	20 51	31%
BUS BUS	FIN FST	14 4	11 14	2		3						6 4	37 22	75.7% 81.8%	24.3% 18.2%		2	40 6	79 28	53% 21%

#### Student Satisfaction Survey Results Analysis conducted by Jennifer Gienger, MSED Office of Institutional Research February 26, 2003

The Student Satisfaction survey was distributed to randomly selected classes. One hundred fiftythree students in these classes completed the survey. The following is the demographic breakdown of this survey.

#### **Demographic Data Analysis:**

Gender	N	Percentage
Male	73	48%
Female	79	52%

Age	Ν	Percentage
16 – 25	89	59%
26 - 35	26	17%
36 - 45	21	14%
46 - 55	12	8%
55 and over	4	2%

Ethnicity	N	Percentage
Native American	3	1.5%
African American	6	4%
Asian	10	7%
Hispanic	13	9%
White	118	77%
Unknown	3	1.5%

Do consider yourself disabled or handicapped?	N	Percentage
No Disability	147	96%
Disability	6	4%

#### **Demographic Data Analysis Continued:**

What was you primary objective in attending your two-year college?	N	Percentage
College Transfer	82	54%
Job preparation	28	18%
Improvement of job skills	18	12%
Personal	16	11%
Other	8	5%

What is your educational goal for attending your two-year college?	N	Percentage
Take 1 course	3	2%
Take a few courses	41	27%
Get a Certificate	23	15%
Get and Associates degree	83	54%
Get Vocational degree	3	2%

How many credit hours are you taking this semester?	N	Percentage
4 or less	17	11%
5 - 11	78	51%
12 or more	58	38%

If employed, how many hours a week are you working?	N	Percentage
20 or less	23	19%
21 - 39 hrs	44	36%
40 or more	54	45%

#### **Evaluation of Two-Year College Instruction:**

Quality of Instruction	N	Percentage
Poor	5	3%
Fair	18	12%
Good	70	46%
Very Good	60	39%

Instructor's knowledge of subject(s)	N	Percentage
Fair	8	5%
Good	43	28%
Very Good	102	67%

Course objectives and requirements made clear	N	Percentage
Poor	4	3%
Fair	22	15%
Good	50	33%
Very Good	74	49%

Content of Course	N	Percentage
Poor	3	2%
Fair	19	13%
Good	63	41%
Very Good	67	44%

Methods of Instruction	N	Percentage
Very Poor	1	1%
Poor	8	5%
Fair	29	19%
Good	54	35%
Very Good	60	40%

## **Evaluation of Two-Year College Instruction Cont:**

Ē

Testing and Grading	N	Percentage
Poor	1	1%
Fair	25	16%
Good	75	49%
Very Good	52	34%

Class size	N	Percentage
Poor	1	1%
Fair	18	12%
Good	62	40%
Very Good	71	47%

Availability of courses at convenient times	Ν	Percentage
Very Poor	1	1%
Poor	12	8%
Fair	33	22%
Good	48	31%
Very Good	58	38%

#### **Evaluation of Two-Year College Services:**

Admissions/Registration procedures	N	Percentage
Didn't Use	3	2%
Very Poor	5	3%
Poor	3	2%
Fair	19	12%
Good	78	52%
Very Good	45	29%

Career planning and guidance	N	Percentage
Didn't Use	43	28%
Very Poor	9	6%
Poor	9	6%
Fair	36	24%
Good	36	24%
Very Good	19	12%

Course Advising	N	Percentage
Didn't Use	33	22%
Very Poor	10	7%
Poor	14	9%
Fair	38	25%
Good	37	24%
Very Good	20	13%

Financial Aid	N	Percentage
Didn't Use	62	42%
Very Poor	5	3%
Poor	6	4%
Fair	24	16%
Good	29	20%
Very Good	23	15%

## **Evaluation of Two-Year College Services Cont:**

Student Activities	N	Percentage
Didn't Use	96	64%
Poor	4	3%
Fair	14	9%
Good	22	15%
Very Good	13	9%

Job placement office	N	Percentage
Didn't Use	102	69%
Very Poor	3	2%
Poor	1	1%
Fair	17	12%
Good	15	10%
Very Good	9	6%

Assistance to disadvantaged	N	Percentage
Didn't Use	98	67%
Very Poor	3	2%
Fair	12	8%
Good	16	11%
Very Good	17	12%

Library/learning resources center	N	Percentage
Didn't Use	37	25%
Very Poor	3	2%
Poor	3	2%
Fair	25	17%
Good	39	25%
Very Good	44	29%

#### **Evaluation of Two-Year College Services Cont:**

Tutorial Services	N	Percentage
Didn't Use	82	55%
Poor	2	1%
Fair	25	17%
Good	19	13%
Very Good	20	14%

Educational development courses/basic skills center	N	Percentage
Didn't Use	84	57%
Poor	2	1%
Fair	17	12%
Good	27	18%
Very Good	17	12%

Bookstore	Ν	Percentage
Didn't Use	7	5%
Very Poor	7	5%
Poor	10	7%
Fair	40	26%
Good	57	37%
Very Good	32	20%

Business office	N	Percentage
Didn't Use	77	53%
Very Poor	2	1%
Poor	5	3%
Fair	17	11%
Good	34	23%
Very Good	14	9%

#### **Evaluation of Two-Year College Services Cont:**

Food Services	N	Percentage
Didn't Use	67	45%
Very Poor	10	7%
Poor	8	5%
Fair	23	16%
Good	25	17%
Very Good	15	10%

# Satisfaction with your growth in the following areas as a result of your two-year college education:

Ability to organize ideas	N	Percentage
Dissatisfied	6	4%
Satisfied	96	67%
Very Satisfied	42	29%

Ability to think critically	N	Percentage
Dissatisfied	4	3%
Satisfied	93	65%
Very Satisfied	46	32%

Ability to write with clarity	Ν	Percentage
Very Dissatisfied	2	1%
Dissatisfied	8	6%
Satisfied	87	61%
Very Satisfied	45	32%

# Satisfaction with your growth in the following areas as a result of your two-year college education cont.

Ability to speak with clarity	N	Percentage
Very Dissatisfied	1	1%
Dissatisfied	10	7%
Satisfied	84	59%
Very Satisfied	46	33%

Ability and skills in problem solving	N	Percentage
Dissatisfied	8	6%
Satisfied	88	63%
Very Satisfied	43	31%

Knowledge of methods and problems in the social sciences	Ν	Percentage
Very Dissatisfied	3	2%
Dissatisfied	10	7%
Satisfied	95	68%
Very Satisfied	33	23%

Knowledge of methods and achievements in science	N	Percentage
Very Dissatisfied	1	1%
Dissatisfied	13	9%
Satisfied	93	66%
Very Satisfied	33	24%

Knowledge and skills in mathematics	N	Percentage
Very Dissatisfied	7	5%
Dissatisfied	15	11%
Satisfied	84	61%
Very Satisfied	31	23%

Awareness and appreciation of the arts and humanities	N	Percentage
Very Dissatisfied	3	2%
Dissatisfied	7	5%
Satisfied	87	63%
Very Satisfied	42	30%

Awareness and understanding of ethics	N	Percentage
Very Dissatisfied	3	2%
Dissatisfied	6	4%
Satisfied	84	60%
Very Satisfied	46	34%

What time do you prefer to take classes?	Ν	Percentage
All day	16	11%
Mornings	52	34%
Afternoons	17	11%
Evenings	65	43%
Weekends	1	1%

Highest level of education achieved before enrolling at ACC:	N	Percentage
Grade School	1	1%
Some High School	5	3%
High School Diploma	70	47%
High School equivalency certificate	6	4%
Some College	44	29%
Degree from a two-year college	2	1%
Degree from a four-year college	17	12%
Other	5	3%

How did you hear about your two-year college?	N	Percentage
No response	6	4%
Class schedule mailed	27	19%
Class schedule picked-up	1	1%
Newspaper article	7	5%
Viewbook or other brochure	3	2%
Two-year college catalogue	19	13%
Parents	25	18%
Teacher or counselor	27	19%
Friend or other student	27	19%

What is the main reason that you chose or continuing at ACC?	N	Percentage
Quality of instruction	19	13%
Close to home or work	58	39%
Low cost	29	19%
Courses met your needs	26	17%
Friends	2	1%
Admission/Reg procedures easier	1	1%
Courses offered when you could take them	4	3%
Financial Aid	2	1%
Advisors are helpful	3	2%
Other	6	4%

How would you rate your ACC experience so far?	N	Percentage
Very good	45	30%
Good	75	50%
Fair	28	19%
Poor	1	1%

#### Successful Retention and Registration Time Analysis by Dr. Suzanne Larsh

Is there a relationship between successful retention in Arapahoe Community College courses and registration time?

#### **Review**

Enrollment management personnel and faculty were interested in the relationship between successful retention in courses at Arapahoe Community College and the time at which students register for courses. It was hypothesized that students who register late for a course have a smaller chance of successfully completing the course.

#### **Methodology**

Final course grades and registration time for the entire fall 2002 student population were available. For the purposes of this study, courses included in the successfully retained group resulted in a final grade of A, B, C, D, S (Satisfactory), I (Incomplete), or IP (In-Progress). Courses in which students were unsuccessfully retained resulted in a final grade of F, U (Unsatisfactory), or W, indicating withdrawal from the course. Courses dropped during the semester were not included in this study because of the variety of reasons drops occur, and the difficulty in determining the extent of class participation before the drop action. Courses being audited (AU) were not included in this study because final grades are not given for audits.

Students registered for a total of 27,070 courses for the fall 2002 semester. Removing courses from the data pool which were dropped or audited resulted in a total of 20,470 courses. On-time registration was considered to be registration by any date up to and including the first day of class. Late registration was defined as registration any time after the first day of class. 2435 of the total 20,470 courses were classified as late registration. A random sample of 2435 on-time registrants was taken to match the number of late cases.

#### **Results**

Initial inspection of group means showed the mean success rate for courses which had been registered for on time was higher (x = .81) than for those registered late (x = .75). These means were calculated from coded data with non-success = 0 and success = 1. A univariate analysis of variance (between subjects) test was performed, comparing the success rates of students in the two registration groups. The analysis of variance test compares means of sample groups in order to make inferences about population means. Although the assumption of equal group variances was violated for the sample drawn, the large group sizes and a confirmatory t-test showing nearly identical results for equal and unequal group variances (t = -4.93 and t = -4.95 respectively, equal standard errors = 0.2 and equal confidence intervals of -.04) justified the use of univariate statistical tests.

Results of the univariate analysis indicate a significant difference in success rates for on-time course registration compared with late registration (F (1, 4869) = 24.29, p =.000), indicating that the differences between groups was not likely to happen by chance.

Power analysis (observed power = .99) indicated that the sample size was large enough to detect a difference between the two groups, and that the chances were very small of erroneously concluding that the groups didn't differ when they did. Further, this amount of statistical power is indicative of a sample that would be able to detect a treatment effect, (however small) if one existed. However,

examination of effect size (measured by a partial eta squared,  $\eta 2$ , which is an index of the proportion of explained variance, or an estimate of the magnitude of the effect of registering on time versus registering late) yielded a partial  $\eta 2$  of .005, which is classified as a very small effect size. One way to confirm this statistically low magnitude is to look at actual success and non-success rates between the two groups. There is a non-success rate of 19% in the "on-time" group. That is, 19% of courses resulted in unsuccessful retention for reasons other than registration time. We can probably assume that 19% (462 registrants) of the total number (2435) of late registrants were also non-successfully retained for the same reasons (the assortment of reasons not related to registration time). The actual non-success rate of the "late" group was 25% (605 course registrants out of 2435). If 462 of the 2435 would have been unsuccessfully retained anyway, the total number of "true" non-successes (those probably associated with late registration) is 143 (605 minus 462). Therefore, of the total fall enrollment of 20,470 courses (excluding courses dropped and audited), 143 (less than 1% of the total) registrants were probably unsuccessfully retained for reasons associated with late registration time. This is the quantitative explanation of the small effect size rendered by the statistical analysis.

#### **Conclusions**

Although this analysis of the relationship between registration time and course success indicates that students registering on time are more likely to succeed in their courses, the magnitude of the difference between groups is statistically and quantitatively very small.

Other factors may warrant consideration in interpreting these results. First, the fall 2002 semester may not be representative of typical registration and success patterns, although the large sample size used in this analysis would usually allow generalizability to other semesters and years. Even so, data from additional years and semesters would help confirm the results reported here. Another factor to consider is multiple late registrations by the same student. A study comparing the success rate for one late-registration course versus success in two or more late registrations might show a relationship between the number of late registrations per student and the likelihood of successful retention.

# Environmental Scan

#### Age Trend Analysis By Dr. Suzanne Larsh

#### Purpose

To evaluate conclusions drawn in the 2001 Environmental Scanning Report submitted by Beth S. Pent regarding future population trends that may affect Arapahoe Community College.

#### Method

Population data from 2003 and 2013 were collected from the Colorado Department of Local Affairs. Aggregate population data from Arapahoe, Douglas and Jefferson counties were drawn in order to give a current assessment of population trends. Although this tri-county area extends beyond the state mandated service area for Arapahoe Community College, the analysis may generalize fairly well to our service area. Both the tri-county and service area boundaries encompass Douglas County, which is the fastest growing county in the tri-county region, and which comprises most of the mandated ACC service area. Changes in this rapidly changing county could account for many of the proportional changes reflected in the 2003-2013 comparison.

Initial exploration of the data show that the overall population is projected to increase from 1,266,119 to 1,486,624, an increase of 14.83%. This population increase is not distributed evenly across all age ranges; a projected net decrease in population is expected in the 30 to 49 age ranges. The other age ranges (zero to 29 and 50 to 90+) collectively account for the 14.83% increase in total population.

Next, the 2003 and 2013 data were compared using the chi-square (X<sup>2</sup>) goodness-of-fit procedure to compare the percentage or probability distribution of the populations. Attachment 1 shows that the population distributions from the years 2003 and 2013 are significantly different (X<sup>2</sup>  $\alpha$  =.05, 19 df = 30.14).

#### **Review and Discussion**

The population in the tri-county area is projected to increase by over 220,000 people during the next ten years. However, a net population decrease is expected for the age ranges included in the 30 to 49 group. Further, other age groups in the population do not increase at exactly the same rate.

The chi-square analysis allows us to compare our current (2003) frame of mind with the population projections for 2013. For example, there will be proportionally fewer (by .87%) people in the 15 to 19 age range in 2013 than we are currently used to in the tri-county region. However, because of the overall population increase, there will be an actual increase of 3,725 people in that age range (proportionally fewer than we are used to, but quantitatively more). A more intuitively understandable relationship exists between the proportional and quantitative changes for the 20 to 29-year age ranges. By 2013 there will be 2.78% more in this age range proportionally than in 2003, and 68,071 more people (proportionally more, and quantitatively more, too). This same effect is seen in the 50 to 74 age ranges. There will be 6.45% more people (proportionally) in this range compared to 2003, and an actual increase of 44,062 people. Attachment 2 shows the percent changes expected for each age range.

Finally, the conclusions from the current analysis were compared with statements made in the 2001 Environmental Scanning report concerning population trends, as follows:

- 1. The 2001 report reads "...we can predict that over the next ten years [1990 to 2000] or so, the populations of Arapahoe, Douglas, and Jefferson Counties reaching the ages of 60 and over will be far greater than the portions of the population who reach the ages of 20 or more (p.10.)" Even assuming that the author meant to exclude those of ages 60 and over from the group reaching age 20 or more from her calculations, the current analysis does not support this statement. The current analysis sets the projected population percentage for 2013 of ages 20 to 59 at 56.41%; the percentage of persons aged 60 or more is 16.98%.
- 2. Another statement from the 2001 report about future needs reads "A major planning factor for the ACC service area over the next 20 year period will need to be focused on senior citizen needs (p.10)." This statement is partially correct. If the 2013 projections are accurate, there will be a 6.45% proportional increase in the 50 to 74-year age ranges in the tri-county area as compared to 2003. A population increase of 44,062 in this age range can be expected. This is both a proportional and quantitative increase from 2003 population rates in this age range. Arapahoe Community College should be prepared to offer services to this population.

However, the 2001 report somewhat downplays the increases in younger populations by merely stating "…enrollment of students straight out of high school can be expected to increase at a rate slightly above the state average over the coming 10 to 20 years (p.12)." The current analysis shows a small proportional decrease (.87%) in this "straight out of high school" group of 15 to 19 years, but a corresponding population increase of 3,725. When added to the population increase of 68,071 and the proportional increase of 2.78% from the 20 to 29-year group, this younger group (15 to 29 years) should not be neglected in favor of older community members by planners at ACC.

#### Summary

To review, the tri-county area will experience an overall population increase by the year 2013. This increase affects two broad age groups that may be considered potential ACC student population pools. The first group aged 15 to 29 will increase proportionally by a modest 1.91%, but this increase corresponds with a quantitative increase of 71,796 people. The second group, aged 50 to 74, will increase by 44,062, a proportional increase of 6.45%. While this older group's proportional increase is greater, the quantitative increase is comparatively less than the increase in the younger age group. A two-pronged approach to strategic planning based on this population trend analysis is apparent, prepare to provide courses for an increasingly large group of "traditional age" prospective students, and provide courses and services for the group of older community members that will be proportionally larger than currently experienced in the tri-county region.

#### Age Trend Analysis attachment I

			n in Arapano		i Douyias Cou			
			•	E				
_			0	expected		(0 - E)		
Age		р	(projected)	•••	0 - E	Square of		
range	2003	probability	2013	2013	Difference	Difference	(0 - E) /E	
0 to 4	88285	0.070	101869	103661	-1792	3211264	30.978649	
5 to 9	89426	0.071	97523	105000	-7477	55905529	532.43224	
10 to14	94557	0.075	97468	111025	-13557	183792249	1655.415	
15 to 19	95291	0.075	99016	111887	-12871	165662641	1480.6284	X square (α =.05, 19 df) = 30.144
20 to 24	75904	0.060	109064	89123	19941	397643481	4461.7229	
25 to 29	77562	0.061	112473	91070	21403	458088409	5030.0661	X square = Σ (O - E ) / E = 82135.31
30 to 34	95419	0.075	91954	112037	-20083	403326889	3599.9436	
35 to 39	100913	0.080	90651	118488	-27837	774898569	6539.9003	Yes, the proportional distribution of age
40 to 44	115153	0.091	104184	135208	-31024	962488576	7118.5856	ranges within the population changes
45 to 49	109360	0.086	105881	128406	-22525	507375625	3951.3408	significantly from 2003 to 2013.
50 to 54	95883	0.076	116416	112582	3834	14699556	130.56777	
55 to 59	73264	0.058	107806	86024	21782	474455524	5515.4159	
60 to 64	48280	0.038	91624	56688	34936	1220524096	21530.419	
65 to 69	33411	0.026	65843	39230	26613	708251769	18053.923	
70 to 74	26580	0.021	39791	31209	8582	73650724	2359.9099	
75 to 79	21029	0.017	24645	24691	-46	2116	0.0856979	
80 to 84	14612	0.012	16193	17157	-964	929296	54.164881	
85 to 89	7548	0.006	9627	8863	764	583696	65.860984	
90 to 90+	3642	0.003	4596	4276	320	102400	23.946023	
Σ	1266119	1	1486624	1486624	0		82135.307	
· · · · ·			· · · · · · · · ·					

Does the 2013 population distribution in Arapahoe, Jefferson and Douglas counties combined differ from the 2003 population distribution?

- **O** : "Observed" population distribution for 2013. More accurately, the projected population distribution estimated by the Colorado Division of Local Affairs, updated June 19, 2003.
- *E* : Expected population distribution in 2013. This is what the 2013 population would look like if the distribution stayed as it is in 2003.
- O E : This column shows how the age ranges differ (in 2013) from what we might expect given our 2003 population distribution. For example, there are proprotionally more people in the 20 to 29-year and the 50 to 74-year ranges than we are used to now in 2003. There are proportionally fewer in the zero to 19 and the 30 to 49 age ranges than we are accustomed to.

## Age Trend Analysis attachment II

						Ε
			0			expected
Age		% of 2003	(projected)	% of 2013	% change	frequency
range	2003	population	2013	population		2013
0 to 4	88285	6.97%	101869	6.85%	-0.12%	103661
5 to 9	89426	7.06%	97523	6.56%	-0.50%	105000
10 to14	94557	7.47%	97468	6.56%	-0.91%	111025
15 to 19	95291	7.53%	99016	6.66%	-0.87%	111887
20 to 24	75904	6.00%	109064	7.34%	1.34%	89123
25 to 29	77562	6.13%	112473	7.57%	1.44%	91070
30 to 34	95419	7.54%	91954	6.19%	-1.35%	112037
35 to 39	100913	7.97%	90651	6.10%	-1.87%	118488
40 to 44	115153	9.09%	104184	7.01%	-2.09%	135208
45 to 49	109360	8.64%	105881	7.12%	-1.52%	128406
50 to 54	95883	7.57%	116416	7.83%	0.26%	112582
55 to 59	73264	5.79%	107806	7.25%	1.47%	86024
60 to 64	48280	3.81%	91624	6.16%	2.35%	56688
65 to 69	33411	2.64%	65843	4.43%	1.79%	39230
70 to 74	26580	2.10%	39791	2.68%	0.58%	31209
75 to 79	21029	1.66%	24645	1.66%	0.00%	24691
80 to 84	14612	1.15%	16193	1.09%	-0.06%	17157
85 to 89	7548	0.60%	9627	0.65%	0.05%	8863
90 to 90+	3642	0.29%	4596	0.31%	0.02%	4276

Total 1266119 1486624

By 2013, there will be 220,505 more people in the three county area, a 14.83% increase in population. However, this population increase is not distributed equally across age ranges.

\_

	Age	Population	<b>Proportional</b>
Potential student population changes from 2003 to 2013 in the tri-county area:	range	change	change
	15 to 19	up 3,725	.87% fewer
	20 to 29	up 68,071	2.78% more
	30 to 49	down 28,175	6.83% fewer
	50 to 74	up 44,062	6.45% more

## The Colorado Commission on Higher Education (CCHE) Final Annualized FTE for all Colorado State Colleges

	Total Student FTE											
Public Institutions	FY 91-92	FY 92-93	FY 93-94	FY 94-95	FY 95-96	FY 96-97	FY 97-98	FY 98-99	FY 99-2000	FY 2000-01	FY 2001-02	FY 2002-03
Regents of the University of Colorado:												
University of Colorado-Boulder	22,830	22,356	22,272	21,633	21,527	21,683	22,196	22,446	22,882	23,213	23,920	25,254
University of Colorado-Colorado Springs	4,089	3,983	3,916	3,974	4,009	4,084	4,559	4,768	4,968	5,072	5,324	5,846
University of Colorado-Denver	7,007	7,254	7,080	6,955	7,037	6,969	7,057	7,229	7,253	7,571	7,893	8,407
University of Colorado-Health Sciences	2,174	2,268	2,441	2,505	2,539	2,489	2,388	2,435	2,360	2,330	2,410	2,519
State Board of Agriculture:												
Colorado State University-E&G	18,942	19,151	19,173	19,277	19,533	19,667	19,547	19,864	20,088	19,964	20,723	21,525
Colorado State University-PVM	702	692	734	717	723	727	728	737	733	745	745	795
Fort Lewis College	3,793	3,867	4,031	3,946	4,128	4,190	4,167	3,998	4,138	4,019	4,169	4,080
University of Southern Colorado	3,984	4,064	4,040	4,011	3,909	3,683	3,653	3,600	3,629	3,607	3,515	3,448
Trustees of Colorado School of Mines:												
Colorado School of Mines	2,573	2,858	3,006	3,094	3,189	3,242	3,211	3,250	3,276	3,114	3,216	3,331
Board of Trustees Univ. of No. Colorado:												
University of Northern Colorado	9,772	9,706	9,840	9,721	9,554	9,443	9,619	9,916	10,295	10,309	10,329	10,605
Trustees of State Colleges:												
Adams State College	2,378	2,350	2,164	2,255	2,274	2,295	2,177	2,266	2,262	2,143	2,293	2,322
Mesa State College	3,531	3,633	3,734	3,893	4,001	4,073	4,085	4,189	4,141	4,313	4,461	4,651
Metropolitan State College of Denver	12,686	12,499	12,307	12,246	12,087	12,347	12,556	12,317	12,369	12,280	13,227	14,188
Western State College	2,351	2,442	2,157	2,161	2,226	2,280	2,224	2,198	2,179	2,072	2,094	2,141
CCCOES:												
Arapahoe Community College	4,128	4,145	4,110	4,036	4,072	4,090	4,086	4,208	4,140	4,091	4,318	4,688
Colorado Northwestern Community College	861	925	876	815	820	833	866	795	730	754	872	922
Community College of Aurora	2,408	2,555	2,702	2,671	2,619	2,418	2,404	2,577	2,693	2,669	2,814	3,178
Community College of Denver	4,032	4,486	4,603	4,440	4,236	4,227	4,038	4,071	4,026	4,027	4,188	5,042
Front Range Community College	6,234	6,592	6,483	6,350	6,737	6,446	6,500	7,008	7,467	7,680	8,125	9,224
Lamar Community College	637	675	654	630	664	698	737	745	673	674	682	762
Morgan Community College	584	757	846	716	769	815	879	927	959	959	988	928
Northeastern Junior College	1,780	1,825	1,648	1,633	1,593	1,713	1,532	1,579	1,538	1,604	1,594	1,641
Otero Junior College	726	738	799	813	775	805	854	906	959	974	1,092	1,141
Pikes Peak Community College	4,702	4,886	4,586	4,694	4,560	4,804	4,919	5,108	5,290	5,334	5,680	6,396
Pueblo Community College	2,517	2,744	2,675	2,749	2,821	2,911	3,146	3,221	3,332	3,292	3,610	3,903
Red Rocks Community College	3,245	3,643	3,940	4,033	3,953	3,897	4,185	4,398	4,202	4,233	4,204	4,471
Trindad State Junior College	1,241	1,241	1,243	1,533	1,467	1,567	1,570	1,470	1,464	1,426	1,488	1,584
Local District Colleges:												
Aims Community College	4,509	4,604	4,052	3,820	3,698	3,807	3,779	3,830	3,848	3,813	3,952	3,664
Colorado Mountain College	2,721	2,736	3,010	3,180	3,078	3,099	3,136	3,078	2,927	3,039	2,954	2,857
BOARD SUMMARY:												
Regents of the University of Colorado	36,100	35,861	35,709	35,067	35,112	35,225	36,200	36,878	37,463	38,186	39,547	42,026
State Board of Agriculture	27,421	27,773	27,978	27,950	28,292	28,267	28,096	28,199	28,588	28,335	29,152	29,848
Trustees of the Colorado School of Mines	2,573	2,858	3,006	3,094	3,189	3,242	3,211	3,250	3,276	3,114	3,216	3,331
Board of Trustees Univ. of No. Colorado	9,772	9,706	9,840	9,721	9,554	9,443	9,619	9,916	10,295	10,309	10,329	10,605
Trustees of State Colleges	20,946	20,924	20,362	20,555	20,588	20,995	21,042	20,970	20,951	20,807	22,075	23,301
CCCOES	33,095	35,212	35,165	35,113	35,086	35,224	35,716	37,013	37,472	37,718	39,655	43,879
State Summary	129,907	132,334	132,060	131,500	131,821	132,396	133,884	136,227	138,045	138,470	143,972	152,991
District Summary	7,230	7,340	7,062	7,000	6,776	6,906	6,915	6,908	6,775	6,852	6,906	6,521
Public Summary	137,137	139,674	139,122	138,500	138,597	139,302	140,799	143,135	144,820	145,322	150,879	159,512

# The Colorado Commission on Higher Education Final FTE Student Enrollment Report

	Resident Student FTE										
Public Institutions	FY 91-92	FY 92-93	FY 93-94	FY 94-95	FY 95-96	FY 96-97	FY 97-98	FY 98-99	FY 99-2000	FY 2000-01	FY 2001-02
Regents of the University of Colorado:										1	
University of Colorado-Boulder	15,456	14,809	15,097	14,846	14,632	14,934	15,239	15,243	15,667	15,692	16,007
University of Colorado-Colorado Springs	3,884	3,752	3,669	3,734	3,777	3,840	4,244	4,423	4,602	4,688	4,930
University of Colorado-Denver	6,584	6,794	6,564	6,409	6,426	6,313	6,380	6,627	6,601	6,783	7,065
University of Colorado-Health Sciences	1,930	2,007	2,174	2,248	2,249	2,225	2,150	2,198	2,102	2,096	2,162
State Board of Agriculture:											
Colorado State University-E&G	14,496	14,584	14,531	14,661	14,844	15,157	15,080	15,424	15,657	15,597	16,174
Colorado State University-PVM	331	327	337	326	330	327	352	380	400	422	419
Fort Lewis College	2,854	2,783	2,838	2,764	2,913	2,935	2,866	2,703	2,756	2,672	2,800
University of Southern Colorado	3,711	3,754	3,632	3,549	3,413	3,199	3,136	3,104	3,108	3,086	3,045
Trustees of Colorado School of Mines:											
Colorado School of Mines	1,743	1,910	1,983	2,043	2,122	2,160	2,168	2,281	2,344	2,251	2,358
Board of Trustees Univ. of No. Colorado:											
University of Northern Colorado	8,717	8,651	8,749	8,643	8,403	8,225	8,315	8,573	8,990	9,041	9,088
Trustees of State Colleges:											
Adams State College	1,928	1,931	1,748	1,820	1,833	1,869	1,798	1,898	1,894	1,809	1,920
Mesa State College	3,280	3,320	3,382	3,494	3,589	3,667	3,663	3,779	3,703	3,884	4,030
Metropolitan State College of Denver	12,343	12,162	11,996	11,923	11,767	11,988	12,166	11,909	11,943	11,846	12,761
Western State College	1,584	1,602	1,393	1,417	1,460	1,525	1,478	1,501	1,499	1,432	1,499
CCCOES:											
Arapahoe Community College	3,880	3,849	3,832	3,744	3,832	3,821	3,785	3,832	3,815	3,800	4,080
Colorado Northwestern Community College	782	807	750	697	704	732	768	710	651	666	796
Community College of Aurora	2,359	2,514	2,658	2,603	2,559	2,366	2,349	2,494	2,608	2,595	2,711
Community College of Denver	3,873	4,240	4,365	4,187	3,984	3,973	3,801	3,816	3,762	3,791	3,925
Front Range Community College	5,926	6,187	6,061	5,916	6,329	6,056	6,066	6,554	6,985	7,286	7,719
Lamar Community College	586	612	581	557	580	621	633	649	614	630	640
Morgan Community College	566	712	807	696	744	802	861	911	948	949	979
Northeastern Junior College	1,695	1,724	1,570	1,559	1,515	1,579	1,457	1,500	1,464	1,546	1,513
Otero Junior College	666	677	749	761	735	773	835	887	933	955	1,072
Pikes Peak Community College	4,571	4,717	4,437	4,573	4,436	4,662	4,772	4,994	5,171	5,208	5,507
Pueblo Community College	2,472	2,696	2,623	2,690	2,747	2,831	3,045	3,053	3,175	3,159	3,492
Red Rocks Community College	3,037	3,365	3,598	3,627	3,666	3,720	4,035	4,228	4,034	4,064	4,032
Trindad State Junior College	1,023	1,049	1,059	1,350	1,298	1,396	1,403	1,308	1,314	1,288	1,340
Local District Colleges:											
Aims Community College	4,454	4,544	3,992	3,760	3,630	3,717	3,636	3,554	3,582	3,576	3,745
Colorado Mountain College	2,344	2,279	2,456	2,547	2,464	2,477	2,483	2,442	2,387	2,445	2,412
BOARD SUMMARY:											
Regents of the University of Colorado	27,854	27,362	27,504	27,237	27,084	27,312	28,013	28,491	28,971	29,258	30,164
State Board of Agriculture	21,392	21,447	21,337	21,299	21,499	21,618	21,435	21,610	21,921	21,778	22,438
Trustees of the Colorado School of Mines	1,743	1,910	1,983	2,043	2,122	2,160	2,168	2,281	2,344	2,251	2,358
Board of Trustees Univ. of No. Colorado	8,717	8,651	8,749	8,643	8,403	8,225	8,315	8,573	8,990	9,041	9,088
Trustees of State Colleges	19,135	19,015	18,519	18,654	18,649	19,049	19,105	19,087	19,038	18,970	20,209
CCCOES	31,436	33,149	33,090	32,960	33,129	33,332	33,810	34,936	35,475	35,938	37,805
State Summary	110,278	111,534	111,182	110,836	110,886	111,696	112,845	114,980	116,739	117,235	122,062
District Summary	6,798	6,823	6,448	6,307	6,094	6,194	6,119	5,996	5,969	6,021	6,157
Public Summary	117,076	118,357	117,630	117,143	116,980	117,890	118,964	120,976	122,708	123,257	128,218

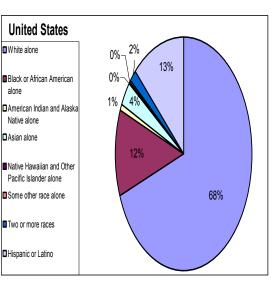
# The Colorado Commission on Higher Education Final FTE Student Enrollment Report

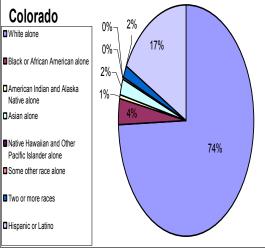
	Non-Resident Student FTE										
Public Institutions	FY 91-92	FY 92-93	FY 93-94	FY 94-95	FY 95-96	FY 96-97	FY 97-98	FY 98-99	FY 99-2000	FY 2000-01	FY 2001-02
Regents of the University of Colorado:											
University of Colorado-Boulder	7,374	7,547	7,175	6,787	6,895	6,749	6,957	7,203	7,215	7,521	7,913
University of Colorado-Colorado Springs	205	231	247	240	232	244	315	345	366	385	394
University of Colorado-Denver	423	460	516	546	611	656	677	602	652	788	827
University of Colorado-Health Sciences	244	261	267	257	290	264	238	237	258	234	249
State Board of Agriculture:											
Colorado State University-E&G	4,446	4,567	4,642	4,616	4,689	4,510	4,467	4,440	4,431	4,367	4,550
Colorado State University-PVM	371	366	397	391	393	399	376	357	333	323	325
Fort Lewis College	939	1,084	1,193	1,182	1,215	1,255	1,301	1,295	1,382	1,347	1,369
University of Southern Colorado	273	310	408	462	496	484	517	496	521	521	470
Trustees of Colorado School of Mines:											
Colorado School of Mines	830	948	1,023	1,051	1,067	1,082	1,043	969	933	864	858
Board of Trustees Univ. of No. Colorado:											
University of Northern Colorado	1,055	1,055	1,091	1,078	1,151	1,218	1,304	1,343	1,305	1,268	1,240
Trustees of State Colleges:											
Adams State College	450	419	416	435	441	426	379	368	368	335	374
Mesa State College	251	313	352	399	412	406	422	410	438	429	431
Metropolitan State College of Denver	343	337	311	323	320	359	390	408	427	434	466
Western State College	767	840	764	744	766	755	746	697	680	640	595
CCCOES:											
Arapahoe Community College	248	296	278	292	240	269	301	376	325	291	238
Colorado Northwestern Community College	79	118	126	118	116	101	98	85	79	89	76
Community College of Aurora	49	41	44	68	60	52	55	83	84	74	103
Community College of Denver	159	246	238	253	252	254	237	255	264	235	264
Front Range Community College	308	405	422	434	408	390	434	454	482	394	406
Lamar Community College	51	63	73	73	84	77	104	96	59	44	43
Morgan Community College	18	45	39	20	25	13	18	16	11	10	8
Northeastern Junior College	85	101	78	74	78	134	75	79	74	59	81
Otero Junior College	60	61	50	52	40	32	19	19	25	19	20
Pikes Peak Community College	131	169	149	121	124	142	147	114	118	126	172
Pueblo Community College	45	48	52	59	74	80	101	168	157	133	118
Red Rocks Community College	208	278	342	406	287	177	150	170	168	169	172
Trindad State Junior College	218	192	184	183	169	171	167	162	150	138	148
Local District Colleges:											
Aims Community College	55	60	60	60	68	90	143	276	266	236	208
Colorado Mountain College	377	457	554	633	614	622	653	636	540	594	542
BOARD SUMMARY:											
Regents of the University of Colorado	8,246	8,499	8,205	7,830	8,028	7,913	8,187	8,387	8,491	8,928	9,383
State Board of Agriculture	6,029	6,327	6,640	6,651	6,793	6,648	6,661	6,588	6,667	6,557	6,714
Trustees of the Colorado School of Mines	830	948	1,023	1,051	1,067	1,082	1,043	969	933	864	858
Board of Trustees Univ. of No. Colorado	1,055	1,055	1,091	1,078	1,151	1,218	1,304	1,343	1,305	1,268	1,240
Trustees of State Colleges	1,811	1,909	1,843	1,901	1,939	1,946	1,937	1,883	1,913	1,837	1,866
CCCOES	1,659	2,063	2,075	2,153	1,957	1,892	1,906	2,077	1,996	1,781	1,850
State Summary	19,630	20,801	20,877	20,664	20,935	20,699	21,038	21,247	21,305	21,235	21,911
District Summary	432	517	614	693	682	712	796	912	806	830	750
Public Summary	20,062	21,318	21,491	21,357	21,617	21,411	21,834	22,159	22,111	22,065	22,660

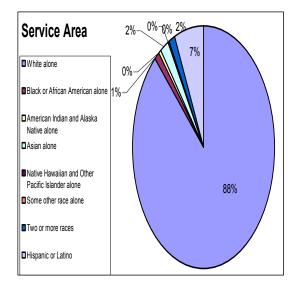
## Populations by Race plus the Ethnicity of Hispanic or Latino

#### Census 2000 Table P7

	United States	Colorado	Service Area (Zip Code)
Total:	281,421,906	4,301,261	498093
Not Hispanic or Latino:	246,183,425	3,566,162	465334
White alone	194,514,140	3,201,519	439183
Black or African American alone	33,707,230	153,932	5055
American Indian and Alaska Native alone	2,091,206	29,286	2084
Asian alone	10,067,813	91,387	10705
Native Hawaiian and Other Pacific Islander alone	342,743	3,655	355
Some other race alone	447,552	5,255	416
Two or more races	5,012,741	81,128	7536
Hispanic or Latino	35,238,481	735,099	32759
White alone	16,839,585	357,060	18517
Black or African American alone	654,510	5,347	211
American Indian and Alaska Native alone	356,783	13,815	493
Asian alone	104,007	1,919	132
Native Hawaiian and Other Pacific Islander alone	36,039	643	77
Some other race alone	14,989,372	305,297	10395
Two or more races	2,258,185	51,018	2934







#### Age / Sex - Census 2000 Table P8

	United States	Colorado	Service Area
Male:	137,916,186	2,163,954	248202
Female:	143,505,720	2,137,307	249891
Total:	281,421,906	4,301,261	498093

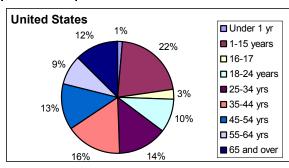
	United States	Colorado	Service Area
Male	49%	50%	50%
Female	51%	50%	50%

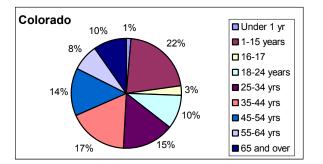
25.44	45,905,471	745,402	99,326
	40.900.471	145,402	99,320
35-44 yrs 45-54 yrs	, ,	613 007	81 886
35-44 yrs 45-54 yrs 55-64 yrs	37,578,609 24,171,230	613,007 337,986	81,886 39,608
45-54 yrs	37,578,609	,	

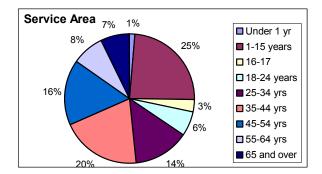
			Service Area
	United States	Colorado	(Zip Code)
Median household income in	41,994	47,203	76731

#### Per Capita Income - Census 2000 Table P82

	United States	Colorado	Service Area (Zip Code)
Per capita income in 1999	21,587	24,049	34061



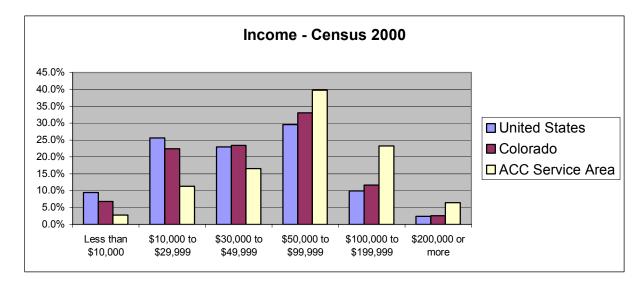




#### Household income Census 2000 Table P52

	United Sta	ates	Color	ado	Service (Zip C	
	Number	Percent	Number	Percent	Number	Percent
Total:	105,539,122	100.0%	1,659,308	100.0%	184,190	100.0%
Less than \$10,000	10,067,027	9.5%	114,658	6.9%	5,205	2.8%
\$10,000 to \$14,999	6,657,228	6.3%	82,584	5.0%	4,257	2.3%
\$15,000 to \$19,999	6,601,020	6.3%	86,761	5.2%	4,589	2.5%
\$20,000 to \$24,999	6,935,945	6.6%	99,236	6.0%	5,398	2.9%
\$25,000 to \$29,999	6,801,010	6.4%	103,455	6.2%	6,545	3.6%
\$30,000 to \$34,999	6,718,232	6.4%	105,527	6.4%	7,149	3.9%
\$35,000 to \$39,999	6,236,192	5.9%	99,230	6.0%	7,701	4.2%
\$40,000 to \$44,999	5,965,869	5.7%	97,371	5.9%	8,011	4.3%
\$45,000 to \$49,999	5,244,211	5.0%	85,288	5.1%	7,635	4.1%
\$50,000 to \$59,999	9,537,175	9.0%	162,096	9.8%	16,701	9.1%
\$60,000 to \$74,999	11,003,429	10.4%	189,567	11.4%	24,361	13.2%
\$75,000 to \$99,999	10,799,245	10.2%	197,339	11.9%	32,220	17.5%
\$100,000 to \$124,999	5,491,526	5.2%	101,257	6.1%	21,041	11.4%
\$125,000 to \$149,999	2,656,300	2.5%	49,315	3.0%	11,299	6.1%
\$150,000 to \$199,999	2,322,038	2.2%	42,707	2.6%	10,427	5.7%
\$200,000 or more	2,502,675	2.4%	42,917	2.6%	11,651	6.3%

			ACC Service
	United States	Colorado	Area
Less than \$10,000	9.5%	6.8%	2.8%
\$10,000 to \$29,999	25.6%	22.4%	11.3%
\$30,000 to \$49,999	23.0%	23.4%	16.5%
\$50,000 to \$99,999	29.6%	33.1%	39.8%
\$100,000 to \$199,999	9.9%	11.7%	23.2%
\$200,000 or more	2.4%	2.6%	6.4%
TOTAL	100.0%	100.0%	100.0%



United S 079,676 754,951 737,771 284,898 955,693 964,109 150,412 977,357 380,372 192,287 223,614 123,703 957,508 945,308 354,565 905,471 10,806 757,487 10,806 757,487 10,806 757,487 10,806 757,487 10,806 732,108 383,401 988,722 749,839 003,742	States % 4.0% 21.3% 28.6% 34.3% 4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2% 8.7%	Colo # 427,839 19,377 87,294 118,154 148,837 15,897 35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298 64,773	%           4.5%           20.4%           27.6%           34.8%           3.7%           8.4%           0.5%           4.6%           8.7%           20.2%           24.2%           7.6%           26.9%           7.3%           3.3%           7.3%           23.0%           24.2%	Service (Zip Co # 30441 556 6812 8487 9535 1290 3557 204 69666 596 2566 10042 17518 4882 27080 6982 99326 614 3260 14720 23538	
067,510           079,676           754,951           737,771           284,898           095,693           964,109           150,412           77,357           380,372           192,287           223,614           123,703           957,508           354,565           05,4768           10,806           75,7487           968,020           354,927           732,108           383,401           998,722           749,839	4.0% 21.3% 28.6% 34.3% 4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	427,839 19,377 87,294 118,154 148,837 15,897 35,982 2298 664,455 30,337 57,515 134,496 160,525 50,279 178,908 52,395 745,402 24,902 54,184 171,564 180,298	4.5% 20.4% 27.6% 34.8% 3.7% 8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	30441 556 6812 8487 9535 1290 3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	1: 22: 27: 31: 4: 11: 0: 0: 0: 3: 3: 14: 2: 5: 7: 7: 3: 8: 10: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0
779,676           754,951           737,771           284,898           95,693           964,109           150,412           577,357           380,372           492,287           223,614           123,703           957,508           954,508           354,565           905,471           110,806           757,487           968,020           354,927           732,108           83,401           998,722 <b>749,839</b>	21.3% 28.6% 34.3% 4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	19,377 87,294 118,154 148,837 15,897 35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	20.4% 27.6% 34.8% 3.7% 8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	556 6812 8487 9535 1290 3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	222 277 311 4 111 00 00 33 144 255 77 388 100 00 33
754,951 737,771 284,898 95,693 964,109 150,412 <b>577,357</b> 380,372 492,287 223,614 123,703 957,508 957,508 954,508 354,565 905,471 10,806 757,487 968,020 354,927 732,108 383,401 998,722 749,839	21.3% 28.6% 34.3% 4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	87,294 118,154 148,837 15,897 35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	20.4% 27.6% 34.8% 3.7% 8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	6812 8487 9535 1290 3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	222 277 311 4 111 00 00 33 144 255 77 388 100 00 33
737,771         284,898         395,693         364,109         150,412 <b>577,357</b> 380,372         492,287         223,614         123,703         957,508         957,508         954,508         957,487         968,020         354,565         905,471         110,806         757,487         968,020         354,927         732,108         383,401         998,722 <b>749,839</b>	28.6% 34.3% 4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	118,154 148,837 15,897 35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	27.6% 34.8% 3.7% 8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	8487 9535 1290 3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	27 31. 4. 11. 0. 0. 3. 3. 14. 25. 7. 7. 3. 8. 10. 0. 0. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.
284,898       395,693       364,109       150,412       577,357       380,372       492,287       223,614       123,703       957,508       354,565       305,471       110,806       75,7487       368,020       354,527       732,108       383,401       398,722 <b>749,839</b>	34.3% 4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	148,837 15,897 35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	34.8% 3.7% 8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	9535 1290 3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	31 4 11 0 0 3 3 14 25 7 7 388 10 0 0 3 3
284,898       395,693       364,109       150,412       577,357       380,372       492,287       223,614       123,703       957,508       354,565       305,471       110,806       75,7487       368,020       354,527       732,108       383,401       398,722 <b>749,839</b>	4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	148,837 15,897 35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	3.7% 8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	9535 1290 3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	31 4 11 0 0 3 3 4 14 25 7 7 3 88 10 10 0 0 3 3
995,693           964,109           150,412           577,357           380,372           492,287           223,614           123,703           957,508           957,508           957,508           954,508           954,508           954,508           954,508           955,471           110,806           757,487           968,020           354,927           732,108           383,401           998,722           749,839	4.0% 7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	15,897 35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	3.7% 8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	1290 3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	4 11 0 0 3 3 14 25 7 7 388 10 10 0 0 3
064,109         150,412         577,357         380,372         492,287         223,614         123,703         957,508         957,508         954,5308         354,565         905,471         110,806         757,487         968,020         354,927         732,308         383,401         998,722         749,839	7.3% 0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	35,982 2298 <b>664,455</b> 30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	8.4% 0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	3557 204 <b>69666</b> 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	11 0 0 3 3 14 25 7 7 38 10 10 0 0 3
150,412 577,357 380,372 492,287 223,614 123,703 357,508 354,505 354,565 354,565 354,565 354,565 354,565 354,927 732,108 383,401 398,722 749,839	0.6% 4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	2298 664,455 30,337 57,515 134,496 160,525 50,279 178,908 52,395 745,402 24,902 54,184 171,564 180,298	0.5% 4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	204 <b>69666</b> 596 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	0 0 3 14 25 7 7 38 10 10 0 0 0 3
577,357           380,372           492,287           223,614           123,703           957,508           957,508           954,5308           354,565           905,471           110,806           757,487           968,020           354,927           732,108           383,401           998,722           749,839	4.8% 11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	664,455 30,337 57,515 134,496 160,525 50,279 178,908 52,395 745,402 24,902 54,184 171,564 180,298	4.6% 8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	69666 596 2566 10042 17518 4882 27080 6982 99326 614 3260 14720	0 3 14 25 7 38 38 10 10 0 0 3
380,372           192,287           123,614           123,703           367,508           145,308           354,565           005,471           110,806           757,487           068,020           354,927           732,108           383,401           198,722           749,839	11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	30,337 57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	596 2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	3 14 25 7 38 10 0 3
92,287 223,614 123,703 367,508 345,308 354,565 305,471 110,806 757,487 068,020 354,927 732,108 383,401 998,722 749,839	11.4% 25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	57,515 134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	8.7% 20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	2566 10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	3 14 25 7 38 10 10
223,614 (23,703) (367,508) (345,308) (354,565) (354,565) (354,565) (354,565) (354,565) (354,927)	25.8% 23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	134,496 160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	20.2% 24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	10042 17518 4882 27080 6982 <b>99326</b> 614 3260 14720	14 25 7 38 10 ( 3
123,703 357,508 345,308 354,565 305,471 110,806 757,487 068,020 354,927 732,108 383,401 998,722 749,839	23.1% 7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	160,525 50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	24.2% 7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	17518 4882 27080 6982 <b>99326</b> 614 3260 14720	28 7 38 10 0 3
57,508 345,308 354,565 005,471 110,806 757,487 068,020 354,927 732,108 383,401 998,722 749,839	7.5% 20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	50,279 178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	7.6% 26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	4882 27080 6982 <b>99326</b> 614 3260 14720	7 38 10 0
345,308           354,565 <b>005,471</b> 110,806           757,487           068,020           354,927           732,108           383,401           998,722 <b>749,839</b>	20.3% 7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	178,908 52,395 <b>745,402</b> 24,902 54,184 171,564 180,298	26.9% 7.9% 3.3% 7.3% 23.0% 24.2%	27080 6982 <b>99326</b> 614 3260 14720	38 10 0
354,565       905,471       110,806       757,487       068,020       354,927       732,108       383,401       998,722       749,839	7.2% 4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	52,395 745,402 24,902 54,184 171,564 180,298	7.9% 3.3% 7.3% 23.0% 24.2%	6982 99326 614 3260 14720	10 (
<b>005,471</b> 110,806 757,487 068,020 354,927 732,108 383,401 098,722 749,839	4.6% 10.4% 28.5% 22.6% 8.1% 17.2%	745,402 24,902 54,184 171,564 180,298	3.3% 7.3% 23.0% 24.2%	<b>99326</b> 614 3260 14720	(
110,806 757,487 068,020 354,927 732,108 383,401 998,722 749,839	10.4% 28.5% 22.6% 8.1% 17.2%	24,902 54,184 171,564 180,298	7.3% 23.0% 24.2%	614 3260 14720	3
757,487 068,020 354,927 732,108 383,401 998,722 749,839	10.4% 28.5% 22.6% 8.1% 17.2%	54,184 171,564 180,298	7.3% 23.0% 24.2%	3260 14720	3
068,020 354,927 732,108 383,401 998,722 749,839	28.5% 22.6% 8.1% 17.2%	171,564 180,298	23.0% 24.2%	14720	
354,927 732,108 383,401 998,722 7 <b>49,839</b>	22.6% 8.1% 17.2%	180,298	24.2%	-	14
732,108 383,401 998,722 7 <b>49,839</b>	8.1% 17.2%	,		23538	
383,401 998,722 7 <b>49,839</b>	17.2%	64,773			23
998,722 7 <b>49,839</b>			8.7%	8006	8
998,722 7 <b>49,839</b>		169,687	22.8%	34493	34
749,839	0./ 70	79,994	10.7%	14695	14
		950,993		121494	
	6.3%	33,187	3.5%	121494	
199,106		60,559	5.5% 6.4%		(
,	10.5%	,		3545	2
696,654	28.7%	209,511	22.0%	18703	1
394,914	21.7%	241,824	25.4%	30178	24
		,			7
					29
037,986	11.4%	140,975	14.8%	23119	19
978,972		415,782		36596	
360,557	16.8%	45,922	11.0%	1898	Ę
211,268	17.8%	56,433	13.6%	3355	9
80,693	32.0%	128,789	31.0%	10101	27
178,051	15.7%	84,963	20.4%	8500	23
364,396	2.5%	11,826	2.8%	1149	3
30,467	8.9%	52,486	12.6%	7290	19
253,540	6.4%	35,363	8.5%	4303	1
279,149	United States	3,204,471	Colorado	357523 S	ervice /
35,153	7.1%	153,725	4.8%	4,732	1
15,099	13.2%	315,985	9.9%	19,538	ę
06,752	28.6%	762,514	23.8%	62,053	17
36,493	22.8%	816,447	25.5%	89,269	25
08,526	6.0%	209,765	6.5%	24,409	(
81,901	14.5%	635,010	19.8%	108,219	30
95,225	7.8%	311,025	9.7%	49,303	13
	60,557 (11,268 80,693 78,051 (64,396 30,467 53,540 79,149 35,153 15,099 06,752 36,493 08,526 81,901	58,616       15.0%         37,986       11.4%         78,972       60,557         660,557       16.8%         11,268       17.8%         80,693       32.0%         78,051       15.7%         664,396       2.5%         30,467       8.9%         53,540       6.4%         79,149       United States         35,153       7.1%         15,099       13.2%         06,752       28.6%         36,493       22.8%         08,526       6.0%         81,901       14.5%	58,616         15.0%         197,947           37,986         11.4%         140,975           78,972         415,782           60,557         16.8%         45,922           11,268         17.8%         56,433           80,693         32.0%         128,789           78,051         15.7%         84,963           30,467         8.9%         52,486           53,540         6.4%         35,363           79,149         United States         3,204,471           35,153         7.1%         153,725           15,099         13.2%         315,985           06,752         28.6%         762,514           36,493         22.8%         816,447           08,526         6.0%         209,765           81,901         14.5%         635,010	558,616         15.0%         197,947         20.8%           337,986         11.4%         140,975         14.8%           78,972         415,782         60,557         16.8%         45,922         11.0%           11,268         17.8%         56,433         13.6%         80,693         32.0%         128,789         31.0%           78,972         56,433         13.6%         80,693         32.0%         128,789         31.0%           78,051         15.7%         84,963         20.4%         64,396         2.5%         11,826         2.8%           30,467         8.9%         52,486         12.6%         53,540         6.4%         35,363         8.5%           79,149         United States         3,204,471         Colorado         35,153         7.1%         153,725         4.8%           15,099         13.2%         315,985         9.9%         06,752         28.6%         762,514         23.8%           36,493         22.8%         816,447         25.5%         08,526         6.0%         209,765         6.5%           81,901         14.5%         635,010         19.8%         19.8%         19.8%         19.8%	58.616         15.0%         197,947         20.8%         35799           337,986         11.4%         140,975         14.8%         23119           78,972         415,782         36596           60,557         16.8%         45,922         11.0%         1898           111,268         17.8%         56,433         13.6%         3355           80,693         32.0%         128,789         31.0%         10101           78,972         84,963         20.4%         8500           64,396         2.5%         11,826         2.8%         1149           30,467         8.9%         52,486         12.6%         7290           53,540         6.4%         35,363         8.5%         4303           779,149         United States         3,204,471         Colorado         357523         54           35,153         7.1%         153,725         4.8%         4,732         15,099         13.2%         315,985         9.9%         19,538         06,752         28.6%         762,514         23.8%         62,053         36,493         22.8%         816,447         25.5%         89,269         08,526         6.0%         209,765         6.5%

## Top 50 Occupations by Annual Growth Rate

# Denver Metro Occupational Projections 1998-2008

Colorado Department of Labor & Employment Labor Market Information Workforce Research & Analysis

Prepared by Margaret Puryear. Projections are from the Colorado Department of Labor & Employment: http://www.coworkforce.com/lmi/oeo/DenverMetro/Top50GR.htm. The additional listing of schools where programs are offered was compiled by visiting each school website along with the CCHE (Colorado Commission on Higher Education) website.

30110013 1	incre programs are oncrea was comp	nicu by	violung			to along	muruic		uuu		111001		ungi		uval		10000								
		Emplo	oyment		Average	Annual			AIMS	ACC	CMC	CNCC	CCA	CCD	FRCC	LCC	MCC	NJC	oro	PPCC	PCC	RRCC	TSJC	EmilyG	Pickett
OES Code	Occupational Title	1998	2008	Absolute Growth	Growth	Replace ment	Opening s																		
25104	Computer Support Specialists	9,460	22,090	1,263	13.40%	60	1,323	ASSOC	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A	A,C	A	A,C	A,C		С
25103	Database Administrators	1,630	3,510	188	11.50%	30	218	BACH														A		С	
25102	Systems Analysts	9,300	19,390	1,009	10.80%	60	1,069	BACH																	
22127	Computer Engineers	8,580	16,610	803	9.40%	50	853	BACH																	
15032	Lawn Service Managers	980	1,780	80	8.20%	10	90	OJT																	
66011	Home Health Aides	3,290	5,520	223	6.80%	50	273	OJT/CERT	С	С	С			С	С		С		С	С	С	С		С	С
87317	Plasterers & Stucco Masons	760	1,250	49	6.40%	20	69	OJT																	
56008	Mail Mach Oprs, Prepara/Handling	1,220	2,000	78	6.40%	40	118	OJT																	
87805	Sheet Metal Duct Installers	550	900	35	6.40%	10	45	OJT																	
49026	Telmktrs/Door Sales/Related Wkrs	7,460	12,190	473	6.30%	190	663	OJT																	
68035	Personal/Home Care Aides	1,200	1,960	76	6.30%	30	106	OJT/CERT	С	С	С			С	С		С		С	С	С	С		С	С
27308	Social/Human Service Assistants	2,890	4,710	182	6.30%	80	262	OJT						A,C						A,C	С	A			
87302	Brickmasons/Blockmasons	600	970	37	6.20%	10	47	OJT																	
13017	Engr/Nat Sci/Comp/Info Sys Mgrs	6,450	10,400	395	6.10%	110	505	BACH																	
87602	Carpet Installers	1,210	1,940	73	6.00%	30	103	OJT																	
31317	Instructors, Adult (Non-VocEd)	1,980	3,140	116	5.90%	20	136	BACH +																	
87808	Roofers	2,560	4,050	149	5.80%	90	239	OJT		С												С	С		С
63017	Correctional Officers	1,860	2,940	108	5.80%	50	158	ASSOC	A,C	A,C	A,C	A,C	A,C	A,C		A		A,C	A,C	A	A,C	A,C	A,C		
34056	Actors/Directors/Producers	1,060	1,670	61	5.80%	20	81	OJT				A	A	A			AC		A	A		A			
15017	Construction Managers	4,210	6,570	236	5.60%	70	306	ASSOC/BACH		A					A							A	A,C		
43017	Sales Agents, Business Services	6,180	9,620	344	5.60%	130	474	OJT																	
25315	Financial Analysts, Statistical	640	990	35	5.50%	10	45	BACH +																	
68026	Flight Attendants	2,110	3,260	115	5.50%	50	165	OJT																	
68021	Ushers/Lobby Atts/Ticket Takers	520	800	28	5.40%	10	38	OJT																	
27307	Residential Counselors	1,420	2,180	76	5.40%	30	106	BACH	С																
66005	Medical Assistants	3,010	4,620	161	5.30%	70	231	OJT/ASSOC	С	С	C			С	С				С			A,C		С	С
21108	Loan Counselors & Officers	3,970	6,040	207	5.20%	90	297	BACH																	
34058	Athletes/Coaches/Umpires/Rel	830	1,260	43	5.20%	30	73	OJT																	
72002	First Line Suprvs: Ag/Forest/Fis	930	1,410	48	5.20%	10	58	BACH																	
53123	Adjustment Clerks	5,870	8,860	299	5.10%	40	339	OJT																	
87108	Drywall Installers	2,620	3,950	133	5.10%	40	173	OJT		С												С			С
87111	Tapers	1,360	2,050	69	5.10%	20	89	OJT		С												С			С
98312	Carpenters/Related Helpers	1,760	2,650	89	5.10%	80	169	OJT		С												С	С		
87311	Cncrt Fnshrs/Cmnt Msns/Trzo Wkrs	2,050	3,080	103	5.00%	20	123	OJT														С	С		С
87102	Carpenters	9,490	14,220	473	5.00%	250	723	OJT		С												С	С		
66002	Dental Assistants	2,520	3,770	125	5.00%	40	165	ASSOC				A		A	С		C			A,C	A,C			С	С
85902	Heat/AC/Refrig Mechns/Instllrs	2,870	4,290	142	4.90%	50	192	OJT/ASSOC							A,C							A,C		С	С

				Į		Ĭ						Ķ							
Ŵ		/		1				ļ											
	Ande Deelder					ľ													
X																			
10)				1				ļ		ļ	Ņ	ļ		Ç				Ň	
				M W															
							ļ	Ņ											
	<b>MARKAT</b> E		Ŵ																
												ļ			ļ	Ņ			ļ

) (fiz

# Denver Metro OCCUPATIONAL PROJECTIONS 1998-2008

Colorado Department of Labor & Employment Labor Market information Workforce Research & Analysis

Prepared by Margaret Puryear. Projections are from the Colorado Dept. of Labor & Employment: http://www.coworkforce.com/lmi/oeo/DenverMetro/Associates.htm. The additional listing of schools where programs are offered was compiled by visiting each school website along with the CCHE (Colorado Commission on Higher Education) website.

Jobs I	Requiring an Associate's Degree																							
		Emplo	oyment		Average	Annual					0			П					τ		ג		m	P
OES				Absolute	Growth	Replace-	Openi	NIA	ACC	2 Z	0 N N	CCA	C C D	FRC	L C	MC	NCC	010	PPC	PC	RRCC	TSJC	Emily	Pickett
Code	Occupational Title	1998	2008	Growth	Rate	ments	ngs	S	ŏ	0	ö	ž	Ŭ	ö	0	0		0	ö	ö	ö	ō	K	∍tt
24502	Biological/Agric Techns/Technols	560	600	40	0.70%	10	14	A								A,C	A,C							
32925	Cardiology Technologists/Techns	120	170	50	4.20%	0	5																	
24505	Chemical Techns/Thnls, Ex Health	750	910	160	2.10%	20																		
22502	Civil Engineering Techns/Technls	750	1,000	250	3.30%	20	45	A,C												A		A,C		
25104	Computer Support Specialists	9,460	22,090	12,630	13.40%	60	1,323	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A,C	A	A,C	A,C	A,C	A,C		С
32908	Dental Hygienists *	1,230	1,810	580	4.70%	30	88				A		А	С					A,C	A,C			С	С
32523	Dietetic Technicians	70	70	0	0.00%	0	0							A										
22505	Elect & Electronic Techns/Tehnls	3,250	3,930	680	2.10%	70	138	A,C	A,C	C**			A**	A,C					A,C	A,C				С
39011	Funeral Directors & Morticians	120	140	20	1.70%	0	2		А															
22508	Ind Engineering Techns/Technls	290	300	10	0.30%	10	11																	
28302	Law Clerks	360	350	-10	-0.30%	0	-1																	
22511	Mechnl Engineering Techns/Tehnls	830	1,040	210	2.50%	20	41	С	А															
32911	Med Records/Health Info Techns	490	690	200	4.10%	10	30	A,C	A,C					A,C					A,C				С	
32905	Med/Clinical Lab Technicians	1,030	1,260	230	2.20%	10	33		A,C															
32914	Nuclear Medical Technologists	160	190	30	1.90%	0	3																	
66021	Occ Therapy Assistants/Aides	140	190	50	3.60%	0	5													A				
28305	Paralegals & Legal Assistants	2,440	3,630	1,190	4.90%	20	139		A,C		A	A,C	A,C						A				С	
24511	Petroleum Techns/Technologists	330	350	20	0.60%	10	12																	
66017	Physical Therapy Assists/Aides	840	1,140	300	3.60%	20	50		А							A				A				
32913	Radiation Therapists	120	120	0	0.00%	0	0																	
32919	Radiologic Techns/Technologists	1,110	1,300	190	1.70%	20	39	A					A							A	A			
32502	Registered Nurses	16,840	21,130	4,290	2.50%	280	709		A,C	A,C	A		A,C	A,C	A,C	A	С	С	A,C	A,C		A,C	С	С
	Respiratory Therapists	760	1,070	310	4.10%	10	41							A						A				С
32951	Veterinary Technologists/Techns	520	680	160	3.10%	10	26			A			A	A										

\* Dental hygienist and Dental Assistant are combined

\*\* Program is under review for that college

A - Associate Degree

C - Certificate

# Denver Metro Occupational Projections 1998-2008

Colorado Department of Labor & Employment Labor Market Information Workforce Research & Analysis

	1998-20	pations by Percentage 08	
Denver Metro		State	
	Average Annual		Average Annual
Occupational Title	Change -5.60%	Occupational Title Roustabouts, Oil/Gas	Change -6.20%
Typesetting/Composing Mach Oprs Power Generating Plant Operators	-4.30%	Typesetting/Composing Mach Oprs	-5.60%
Meat/Poultry/Fish Cutters, Hand	-4.10%	Wellhead Pumpers	-5.40%
Slaughterers & Meat Packers	-4.10%	Derrick Operators, Oil/Gas	-5.40%
			-5.00%
Station InstIlrs/Rprs, Telephone	-3.60%	Service Unit Oprs, Oil/Gas/Mine	
Peripheral Equipment Operators	-3.60%	Petroleum Techns/Technologists	-4.90%
Film Strippers, Printing	-2.90%	Roof Bolters, Mining	-4.30%
Dairy Process Equip Opers/Settrs	-2.50%	Metal Pours/Casters, Basic Shape	-3.70%
Computer Oprs, Ex Peripheral Eq	-1.90%	Mining & Related Managers	-3.60%
Boiler Opers/Tndrs, Low Pressure	-1.80%	Railroad Brake/Signal/Switch Ops	-3.30%
EKG Technicians	-1.70%	Paste-Up Workers	-3.30%
Letterpress Operators	-1.60%	Mine Machinery Mechanics	-3.10%
Fitters, Structural Metal, Prec	-1.40%	Peripheral Equipment Operators	-3.10%
Mach Maint Mechns: Water/Power	-1.40%	Shuttle Car Operators	-3.10%
Marking Clerks	-1.40%	Photoengravers	-2.70%
Central Office Operators	-1.40%	EKG Technicians	-2.60%
Roastng/Dryng Oprs/Tndrs, Fd/Tob	-1.30%	Petroleum Engineers	-2.50%
Switchboard Operators	-1.20%	Station InstIlrs/Rprs, Telephone	-2.30%
Woodwrkng Mach Ops/Tndrs, Ex Swg	-1.20%	Film Strippers, Printing	-2.20%
Compositors/Typesetters, Pre	-1.20%	Food Batchmakers	-2.00%
Statement Clerks	-1.10%	Slaughterers & Meat Packers	-1.70%
Welfare Eligibility Workers	-1.00%	Dairy Process Equip Opers/Settrs	-1.70%
Offset Lithographic Press Opers	-0.90%	Aircraft Assemblers, Precision	-1.60%
Machine Forming Oprs/Tndrs, M/P	-0.80%	Separating/Still Mach Sttrs/Oprs	-1.50%
Proofreaders & Copy Markers	-0.70%	Petro Refinery/Ctrl Panel Opers	-1.50%
Word Processors & Typists	-0.70%	Computer Oprs, Ex Peripheral Eq	-1.00%
Bank Tellers	-0.70%	Announcers, Radio & TV	-0.80%
Announcers, Radio & TV	-0.60%	Switchboard Operators	-0.60%
Data Entry Keyers, Composing	-0.60%	Barbers	-0.60%
Meter Readers, Utilities	-0.60%	Word Processors & Typists	-0.30%

# Denver Metro occupational projections 1998-2008

Г

Colorado Department of Labor & Employment Labor Market Information Workforce Research & Analysis

The 30 Most Declining Occupations by Absolute Number 1998-2008				
<b>a</b>	Average Annual			Average Annual
Occupational Title	Change		Occupational Title	Change
Computer Oprs, Ex Peripheral Eq	-46		Slaughterers & Meat Packers	-50
Meat/Poultry/Fish Cutters, Hand	-44		Computer Oprs, Ex Peripheral Eq	-33
Switchboard Operators	-32		Roustabouts, Oil/Gas	-26
Bank Tellers	-27		Food Batchmakers	-25
Station InstIlrs/Rprs, Telephone	-21		Switchboard Operators	-20
Word Processors & Typists	-18		Petroleum Techns/Technologists	-19
Film Strippers, Printing	-11		Mining & Related Managers	-16
Offset Lithographic Press Opers	-9		Station InstIlrs/Rprs, Telephone	-15
Slaughterers & Meat Packers	-8		Wellhead Pumpers	-14
Mach Maint Mechns: Water/Power	-7		Railroad Brake/Signal/Switch Ops	-14
Welfare Eligibility Workers	-6		Word Processors & Typists	-14
Typesetting/Composing Mach Oprs	-5		Petroleum Engineers	-13
Letterpress Operators	-5		Film Strippers, Printing	-10
Food Batchmakers	-5		Service Unit Oprs, Oil/Gas/Mine	-9
Peripheral Equipment Operators	-5		Announcers, Radio & TV	-8
Power Generating Plant Operators	-3		Derrick Operators, Oil/Gas	-8
Boiler Opers/Tndrs, Low Pressure	-3		Peripheral Equipment Operators	-8
Woodwrkng Mach Ops/Tndrs, Ex Swg	-3		Typesetting/Composing Mach Oprs	-7
Machine Forming Oprs/Tndrs, M/P	-3		Barbers	-6
Machine Tool Cutting Opers, M/P	-3		Mine Machinery Mechanics	-5
Compositors/Typesetters, Pre	-3		Metal Pours/Casters, Basic Shape	-5
Marking Clerks	-3		Roof Bolters, Mining	-4
Central Office Operators	-3		Paste-Up Workers	-3 -3
Statement Clerks	-3		Separating/Still Mach Sttrs/Oprs	-3
Announcers, Radio & TV	-3		Aircraft Assemblers, Precision	-3
Dairy Process Equip Opers/Settrs	-2		EKG Technicians	-3
Butchers & Meatcutters, Retail	-2		Dairy Process Equip Opers/Settrs	-2
Meter Readers, Utilities	-2		Photoengravers	-2
Postal Mail Carriers	-2		Petro Refinery/Ctrl Panel Opers	-2
Proofreaders & Copy Markers	-2		Shuttle Car Operators	-2

# Resources

#### Resources

 AAHE
 American Association of Community Colleges – Fast Facts Link:

 http://www.aacc.nche.edu/Template.cfm?Section=AboutCommunityColleges

AMSTAT American Statistical Association: <u>http://www.amstat.org/index.html</u>

#### Bureau of Economic Analysis:

http://www.bea.doc.gov/

- Local area personal income by county, metropolitan area, BEA Economic areas, State Metropolitan /non metropolitan
- Economic articles from the survey of current business
- National Data provide bench mark information
- Methodologies, papers and presentations
- **CIP code** Classification of Instructional Program code 6-digit "universal" code assigned to each academic program and subject area that allows for consistent categorization of similar programs nationwide. Reference: <u>http://nces.ed.gov/pubs2002/cip2000/</u>
- CCHE
   Colorado Commission on Higher Education:

   http://www.state.co.us/cche\_dir/hecche.html

   CCHE Information and Research:

   http://www.state.co.us/cche/I&R/index.html

   Finding a Major at Colorado Public Two-Year Colleges and Universities :

   http://www.state.co.us/cche/conguide/2001/index.html
- **CCCNS** Colorado Common Course Numbering System further information can be found at: <u>http://www.cccs.edu/cccns/Home.html</u>

CDEColorado Department of Education:<br/>http://www.cde.state.co.us/index\_home.htm<br/>Colorado Department of Education Statistics:<br/>http://www.cde.state.co.us/index\_stats.htm<br/>Graduates by high school:<br/>http://www.cde.state.co.us/cdereval/2000GradsbySchoolLink.htm<br/>Colorado Online Learning Findings and Recommendations:<br/>http://www.cde.state.co.us/edtech/download/eltf-findings.pdfCDLEColorado Department of Labor and Employment reference:

 CDLE
 Colorado Department of Labor and Employment reference: <u>http://www.coworkforce.com/</u>

 Colorado Dept. of Labor and Employment Navigator

 Occupational projections for Colorado State and Denver Metro by

 Occupational group

 Occupational Wages by County and occupational group

 (Average hourly wage, 25<sup>th</sup> and 74<sup>th</sup> percentiles) Labor force by County, Annual and monthly data Employers' listing by county Industry growth by county (employment) http://navigator.cdle.state.co.us/

Jobs Requiring Short-Term On-The-Job Training: <u>http://www.coworkforce.com/Imi/oeo/DenverMetro/ShortTermTr.htm</u>

Jobs Requiring Moderate-Term On-The-Job Training: http://www.coworkforce.com/Imi/oeo/DenverMetro/ModTermTr.htm

Jobs Requiring Long-Term On-The-Job Training: <u>http://www.coworkforce.com/Imi/oeo/DenverMetro/LongTermTr.htm</u>

Jobs Requiring an Associate's Degree: http://www.coworkforce.com/Imi/oeo/DenverMetro/Associates.htm

Jobs Requiring Bachelor's Degree: http://www.coworkforce.com/Imi/oeo/DenverMetro/Bachelors.htm

30 Most Declining Occupations by Absolute Number: <a href="http://www.coworkforce.com/lmi/oeo/DenverMetro/30declabs.htm">http://www.coworkforce.com/lmi/oeo/DenverMetro/30declabs.htm</a>

30 Most Declining Occupation by Rate: http://www.coworkforce.com/lmi/oeo/DenverMetro/30decpdmvc.htm

Top 50 by Growth Rate: http://www.coworkforce.com/Imi/oeo/DenverMetro/Top50GR.htm

#### **Colorado Dept. of Local Affairs**

Data on population Households by income Various county data Mapping data Colorado Economic & Demographic Information System (CEDIS) County and Municipal Financial Data <u>http://www.dlg.oem2.state.co.us/demog/demog.htm</u> <u>http://www.dola.state.co.us/DataEtc.htm</u>

Colorado Regional Economic Forecasting - Local, regional and national economies <u>http://www.cbef-colorado.com/</u>

Community College Survey of Student Engagement

http://www.ccsse.org/

**Cooperative Institutional Research Program (CIRP)** "is a national longitudinal study of the American higher education system established in 1966 at the American Council on Education. The CIRP is the nation's largest and oldest empirical study of higher education, involving data on some 1,800 institutions and over 11 million students. It is regarded as the most comprehensive source of information on college students. The annual report of the CIRP Freshman Survey provides normative data on each year's entering college students." <u>http://www.gseis.ucla.edu/heri/cirp.html</u>

- CNCTYC Council of North Central Two Year Colleges http://cnctyc.kcmetro.cc.mo.us/Mainmenu.htm
- **FedStats:** "The gateway to statistics from over 100 U.S. federal agencies including international comparisons, national, state, county, and local. Published collections of statistics available online including the Statistical Abstract of the United States. Agencies listed alphabetically with descriptions of the statistics they provide and links to their websites, contact information, and key statistics. <u>www.fedstats.gov</u>
- **FERPA** Family Educational Rights and Privacy Act of 1974 governs student rights concerning their education records including right to inspect and review, right to seek amendments to records, and the right to have some control over the disclosure of information from their records. <u>http://www.ed.gov/offices/OII/fpco/</u>
- IPEDS Integrated Postsecondary Education Data System mandated federal reporting system administered through NCES. <u>http://nces.ed.gov/ipeds/</u>

#### Local Chambers of Commerce:

http://www.state.co.us/business\_dir/chambers.html

NCES National Center for Education Statistics - <u>http://nces.ed.gov/</u>

**National Study of School Evaluation (NSSE)** is a non-profit educational research and development organization founded in 1933 by the regional school accreditation commissions in the United States. The NSSE's current scope of work includes a comprehensive series of publications and services to support data-driven and research-based school improvement planning. <u>http://www.nsse.org/index.html</u>

Program ApprovalProcess through CCCS to approve academic programs.<br/>http://ctep.cccoes.edu/progappr/login.jsp

#### **SBCCOES** State Board for Community Colleges and Occupational Education System – a governing body. http://www.cccs.edu/Docs/SBCCOE/Policies/Foreword.html

**Office of State Planning and Budgeting**: special reports and research section can be a useful resource for writing narrations, bench mark information etc. <u>http://www.state.co.us/gov\_dir/govnr\_dir/ospb/</u>

Statistics reference site <u>http://davidmlane.com/hyperstat/index.html</u>

U.S. Census Bureau: http://www.census.gov/

American Factfinderhttp://factfinder.census.gov/servlet/BasicFactsServletQuick Factshttp://quickfacts.census.gov/qfd/index.html

U.S. Department of Education: <u>http://www.ed.gov/index.jsp</u>