

Research to support the Title III Grant Application

Findings

CRC Research Office
October 2004

BACKGROUND

As part of the college-wide effort to develop an application to procure a Title III “Strengthening Our Institutions” grant, the CRC Research Office, in consultation with the Title III Task Group, conducted research activities to find where there might be problem areas in terms of student academic performance measured by a number of different factors. The most severe academic performance issues would be used to develop intervention strategies using Title III funding.

Enclosed in the subsequent pages are the results that were uncovered during the research using existing as well as new research.

METHODOLOGY AND TECHNICAL

In order to perform the required research to support the Title III application process, the Research Office constructed numerous research files that would gauge student retention, student academic performance, Degree and Certificate completion as well as course progression. In addition, it was necessary to construct a specialized research data file that would be used to determine how many students who enrolled in remedial-level course work move through the course sequence, ultimately enrolling and successfully completing the degree/certificate-level course in certain disciplines such as Math and English. This specialized database contained electronic coursework and grade information for nine academic years, spanning the time between Fall 1995 and Spring 2004 semesters, containing nearly 500,000 enrollment/transcript records. This file was also used to calculate course success rates using the formula adopted by statewide community college researchers as well as the State Chancellor’s Office.

RESEARCH QUESTIONS POSED

The Title III task group, in consultation with the CRC Academic Senate, developed the following “problem statements” in which research would be performed to identify problem areas in which specialized intervention strategies could be employed using Title III funds.

Problem Statement #1

At Cosumnes River College, data indicate that student persistence is low as measured by

- a. Enrollment in the following semester
- b. Enrollment in the next course in a sequence

Problem Statement #2

At Cosumnes River College, too few students reach their academic goals as measured by rates of

- a. Successful course completion
- b. Transfer
- c. Degree and/or Certificate completion

Problem Statement #3

At Cosumnes River College, data demonstrates disproportionate success rates among various student groups as measured by

- a. Persistence
- b. Successful course completion
- c. Transfer
- d. Degree and or Certificate completion

Problem Statement #4

At Cosumnes River College, we have insufficient data to identify and evaluate the causes of the above-identified problems.

RESEARCH PERFORMED

Since there were such commonalities between each question (i.e. Persistence, Degree/Certificate completion, etc), it was decided by the Research Office (and approved by the Title III Steering Committee) to reorganize the research components under broad “themes” – Persistence, Course Success Rate, Transfer Rate and Degree/Certificate completion. In addition, it was decided by the Title III steering committee to separate out the course progression from remedial to Degree/certificate-level courses as its own “theme”.

RESEARCH FINDINGS (Brief Version)

Persistence (Fall to Spring)¹

Age: No major nuggets – with the exception of the “under 18” age group, persistence by age relatively constant over time

Gender: No major nuggets – persistence by gender relatively constant over time

Ethnicity: No major nuggets – with the exception of African American students having slightly lower persistence rates; persistence by ethnicity relatively constant over time

Course Completion (Success Rate)²

Nugget: Over 30% of students fail more than half of their courses.

Age: No major nuggets - the older the student, the higher the Success Rate

Gender: No major nuggets - Females slightly higher than males 66%/62%

Ethnicity: African American Success Rate = 50% - 18-20 and 21 - 24 Age Group Success Rate = 44% and 43% respectively. College Average = 64%

Income: No major nuggets - Under \$15,000 - 58%. The higher the income, the higher the success rate.

Transfer Rate³

Age: No major nuggets

Gender: No major nuggets

Ethnicity: 35% drop in African American transfers (compared to 5 years ago) 11% of AA. declare transfer, 5% actually do transfer.

Degree/Certificate Completion

Age: 18% of 18-20 year old students state this goal, only 9% actually achieve goal

Gender: No major nuggets

Ethnicity: 61% of ethnic minority students declare this goal; only 46% are awarded Degree/Certificate

¹ Data used for Persistence Rates were derived from the research conducted by the District’s Office of Institutional Research. Persistence rates is defined as follows: Percent of students enrolled in next term out of students enrolled in first term

² Course completion/success rate uses the following formula:

Total number of A,B,C,CR grade notations divided by the total number of A,B,C,D,F,CR,NC,W(penalty) and Incompletes

³ Data used for Transfer Rates were derived from the research conducted by the District’s Office of Institutional Research using reports provided by the California Postsecondary Education Commission (CPEC).

Course Progression (Remedial to Certificate/Degree-level)⁴⁵

English (Writing skills to College Writing/Practical Communication)

- Number of students who **ENROLLED** in the lowest-level remedial course, ENGWR 41, Writing Skills (1836)
- Number of students who **SUCCESSFULLY COMPLETED** the lowest-level remedial course, ENGWR 41, Writing Skills (1013)
- **ENROLLED** in ENGWR 51, Developmental Writing (604)
- **SUCCESSFULLY COMPLETED** ENGWR 51, Developmental Writing (411)
- **ENROLLED** in ENGWR 101, College Writing or ENGWR 103, Practical Communication (272)
- **SUCCESSFULLY COMPLETED** ENGWR 101, College Writing or ENGWR 103, Practical Communication (156)-- 8.5% of original population

English (Reading skills to Critical/Technical Reading)

- Number of students who **ENROLLED** in lowest level remedial reading course, ENGRD 14, Reading Skills (546)
- Number of students who **SUCCESSFULLY COMPLETED** lowest level remedial reading course, ENGRD 14, Reading Skills (312)
- **ENROLLED** in ENGRD 15, Basic Reading Skills (160)
- **SUCCESSFULLY COMPLETED** ENGRD 15, Basic Reading Skills (119)
- **ENROLLED** in ENGRD 16, Efficient Reading (77)
- **SUCCESSFULLY COMPLETED** in ENGRD 16, Efficient Reading (55)
- **ENROLLED** in ENGRD 112, Critical Reading or ENGRD 115, Technical Reading (35)
- **SUCCESSFULLY COMPLETED** ENGRD 112, Critical Reading or ENGRD 115, Technical Reading (32) – 5.8% of original population

MATH (Arithmetic to Elementary Algebra)

- Number of students who **ENROLLED** in lowest-level remedial course, MATH 20,21,22, Arithmetic (2011)
- Number of students who **SUCCESSFULLY COMPLETED** lowest-level remedial course, MATH 20,21,22, Arithmetic (1059)
- **ENROLLED** in MATH 30, Pre-Algebra (711)
- **SUCCESSFULLY COMPLETED** MATH 30, Pre-Algebra (449)
- **ENROLLED** in MATH 100, Elementary Algebra (293)
- **SUCCESSFULLY COMPLETED** MATH 100, Elementary Algebra (108) -- 5.4% of original population

⁴ Courses that were part of the EDEN student records system and those courses who are part of the PeopleSoft student records system that were not part of the new course-renumbering system have been recoded to reflect the new course numbers. Old-to-new course numbers used were based on information contained in the CRC Catalog.

⁵ Based on analyzing transcript records between Fall 1995 and Spring 2004.

MATH (Arithmetic to Basic Algebra)⁶⁷

- Number of students who **ENROLLED** in lowest-level remedial course, MATH 20,21,22, Arithmetic (2011)
- Number of students who **SUCCESSFULLY COMPLETED** lowest-level remedial course, MATH 20,21,22, Arithmetic (1059)
- **ENROLLED** in MATH 30, Pre-Algebra (711)
- **SUCCESSFULLY COMPLETED** MATH 30, Pre-Algebra (449)
- **ENROLLED** in MATH 105, Basic Algebra –w- applications (44) – 2.1% of original population
- **SUCCESSFULLY COMPLETED** MATH 105, Basic Algebra –w- applications (17) -- 0.8% of original population

MATH (Arithmetic to Any Algebra)

- Number of students who **ENROLLED** in lowest-level remedial course, MATH 20,21,22, Arithmetic (2011)
- Number of students who **SUCCESSFULLY COMPLETED** lowest-level remedial course, MATH 20,21,22, Arithmetic (1059)
- **ENROLLED** in MATH 30, Pre-Algebra (711)
- **SUCCESSFULLY COMPLETED** MATH 30, Pre-Algebra (449)
- **ENROLLED** in MATH 105, Basic Algebra –w- applications or MATH 100, Elementary Algebra (337)
- **SUCCESSFULLY COMPLETED** MATH 105, Basic Algebra –w- applications or MATH 100, Elementary Algebra (125) -- 6.2 % of original population

⁶ Courses that were part of the EDEN student records system and those courses who are part of the PeopleSoft student records system that were not part of the new course-renumbering system have been recoded to reflect the new course numbers. Old-to-new course numbers used were based on information contained in the CRC Catalog.

⁷ Based on analyzing transcript records between Fall 1995 and Spring 2004.

RESEARCH FINDINGS (Data Tables)

Persistence (Fall to Spring)⁸

Age

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Under 18	26.9%	30.3%	28.5%	40.0%	38.5%	50.9%
18 – 20	67.2%	68.3%	68.7%	70.7%	68.8%	70.9%
21 – 24	57.2%	55.8%	56.7%	58.3%	56.0%	57.5%
25 – 29	49.2%	49.5%	50.7%	51.7%	48.5%	49.7%
30 – 39	50.3%	51.7%	51.0%	49.7%	48.9%	44.3%
40 and over	49.7%	51.5%	51.6%	48.7%	49.4%	49.2%

Gender

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Female	54.0%	55.9%	56.5%	57.6%	56.8%	58.1%
Male	55.6%	55.4%	55.3%	56.3%	54.6%	58.1%

Ethnicity

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
African Am.	49.7%	52.8%	50.7%	53.1%	51.1%	53.5%
Asian	61.4%	58.1%	60.5%	61.8%	61.0%	61.0%
Filipino	58.3%	62.5%	62.3%	60.5%	63.4%	62.3%
Latino	53.3%	53.5%	54.7%	56.6%	55.3%	59.0%
Native American	43.8%	52.7%	55.3%	58.9%	61.7%	55.1%
Pacific Islander	53.5%	60.4%	63.6%	62.8%	56.1%	64.0%
White	53.9%	55.1%	55.7%	55.7%	55.1%	56.7%
Other	55.8%	59.0%	51.4%	56.0%	49.7%	59.3%

Course Completion (Success Rate)⁹

Age

	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003
Under 18	71.6%	76.2%	80.8%	72.1%	70.8%
18 – 20	61.6%	57.4%	58.1%	60.0%	59.1%
21 – 24	60.3%	58.6%	60.5%	60.0%	60.4%
25 – 29	62.6%	65.3%	61.1%	63.2%	63.9%
30 – 39	69.2%	68.2%	68.8%	67.1%	67.6%
40 and over	74.9%	74.8%	70.8%	72.3%	71.4%

Gender

	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003
Female	66.1%	63.8%	64.7%	64.8%	63.9%
Male	63.0%	61.9%	60.4%	61.1%	60.7%

⁸ Data used for Persistence Rates were derived from the research conducted by the District's Office of Institutional Research. Persistence rates is defined as follows: Percent of students enrolled in next term out of students enrolled in first term

⁹ Course completion/success rate uses the following formula:

Total number of A,B,C,CR grade notations divided by the total number of A,B,C,D,F,CR,NC,W(penalty) and Incompletes

Ethnicity

	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003
African Am.	51.4%	47.8%	49.0%	50.5%	49.9%
Asian	69.2%	66.6%	66.0%	66.4%	64.1%
Filipino	60.3%	63.5%	63.9%	63.4%	61.8%
Latino	62.6%	58.5%	60.1%	59.4%	61.7%
Native American	67.4%	64.9%	59.2%	57.4%	55.9%
Pacific Islander	59.1%	54.3%	54.4%	59.6%	57.4%
White	68.7%	68.8%	68.3%	68.0%	67.0%
Other	67.5%	64.0%	61.0%	65.0%	66.1%

Transfer Rate¹⁰

	1998-99 Percent	2002-03 Percent	Fall 1998 Transfer Intent	Fall 2002 Transfer Intent
African American	8.1%	5.3%	11.6%	11.1%
Asian	21.6%	21.1%	20.9%	20.6%
Hispanic	8.1%	10.1%	10.9%	10.6%
Am. Indian	1.0%	1.6%	1.7%	1.5%
White	48.9%	42.1%	51.7%	49.0%
Other	12.4%	19.9%	3.3%	7.4%

Degree/Certificate Completion (2003 – 04 Academic year)¹¹

Age

	Under 18	18 - 20	21 - 24	25 - 29	30 - 39	40 +
Deg/Cert Earners	0.4	9	27.3	17.6	15.6	30.1
All Deg/Cert Goal Students	0.9	18.4	19.3	14.1	22	25.3
All Students	2.1	43.3	22.5	9.4	11.1	11.6

Gender

	Female	Male
Deg/Cert Earners	63.8	36.2
All Deg/Cert Goal Students	62.4	37.6
All Students	57.1	42.9

Ethnicity

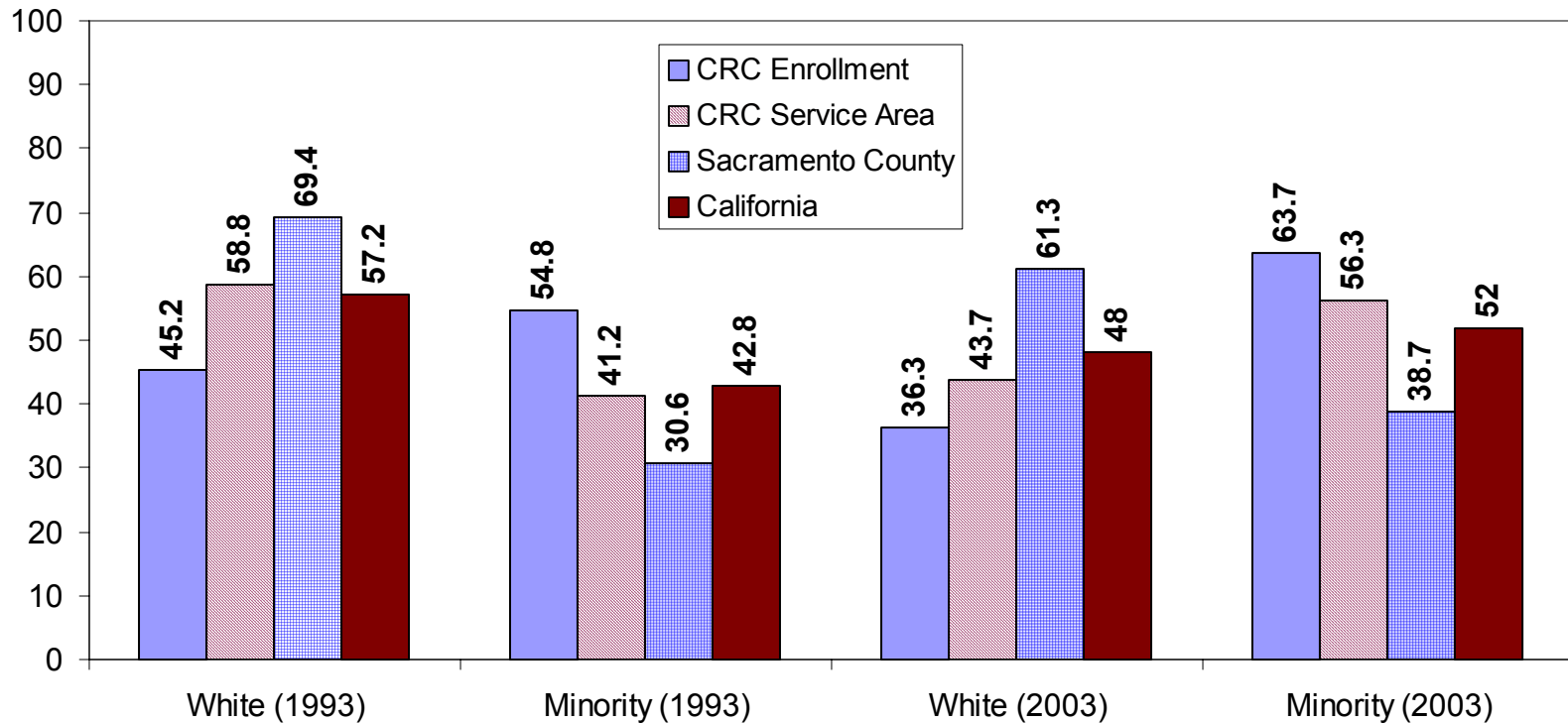
	White	Minority
Deg/Cert Earners	53.6	46.4
All Deg/Cert Goal Students	39.3	60.7
All Students	35.8	64.2

¹⁰ Derived from taking the actual number of student transfers from the UC and CSU systems (as reported by CPEC and dividing it into the total number of students who had indicated a “transfer intent” on their application for admission.

¹¹ Derived from taking the total number of students who had received one or more Degree and/or Certificate from CRC and dividing it into the total number of students who had indicated a “degree/certificate” goal on their application for admission.

ADDITIONAL DATA TABLES

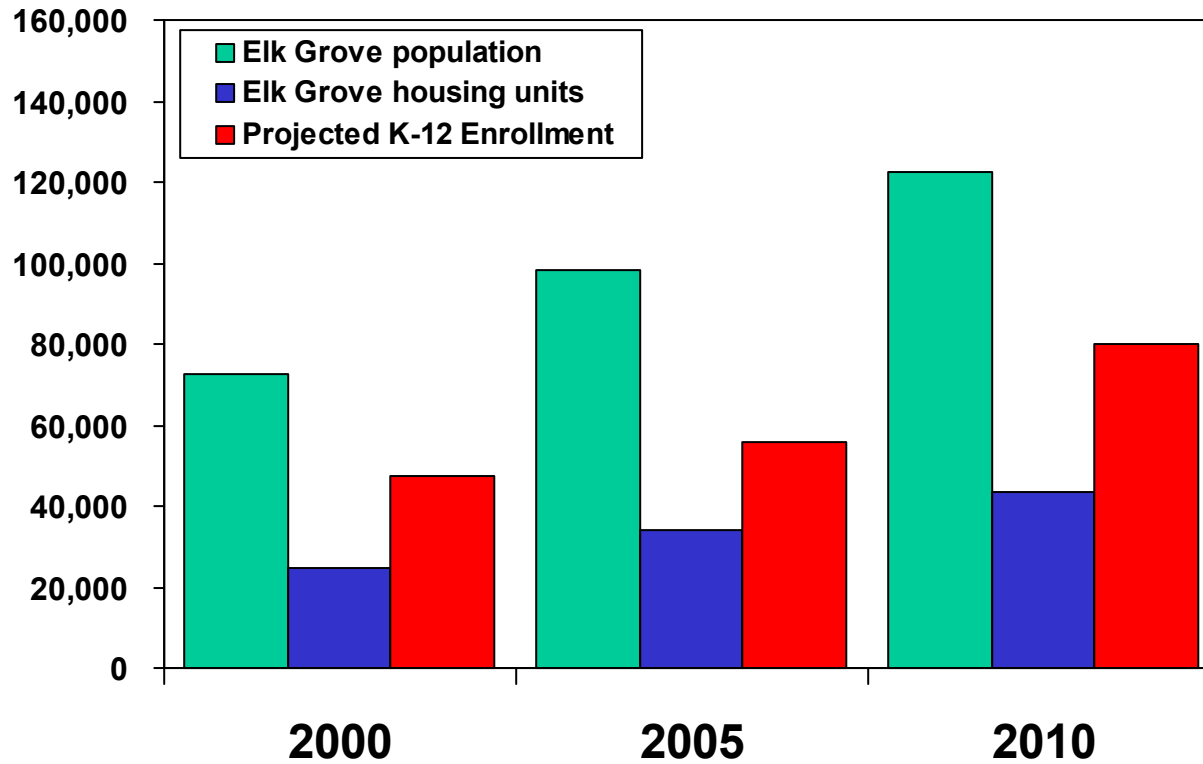
CRC Student Demographics Compared to Service Area, County and Statewide Census Data (1993 - 2003)*



* 1990 and 2000 Census Data provided by the US Census Bureau

- Over the past decade, CRC has become a much more ethnically diverse college when compared to the College's service area, Sacramento County and the State.
- In 1993, CRC minority student population comprised slightly over half (54.8%) of the total population; in 2003 however, CRC minority population now comprises nearly two-thirds (63.7%) of the population. CRC's minority student population is larger than the CRC Service Area proportion as well as larger than Sacramento County and Statewide minority proportions.

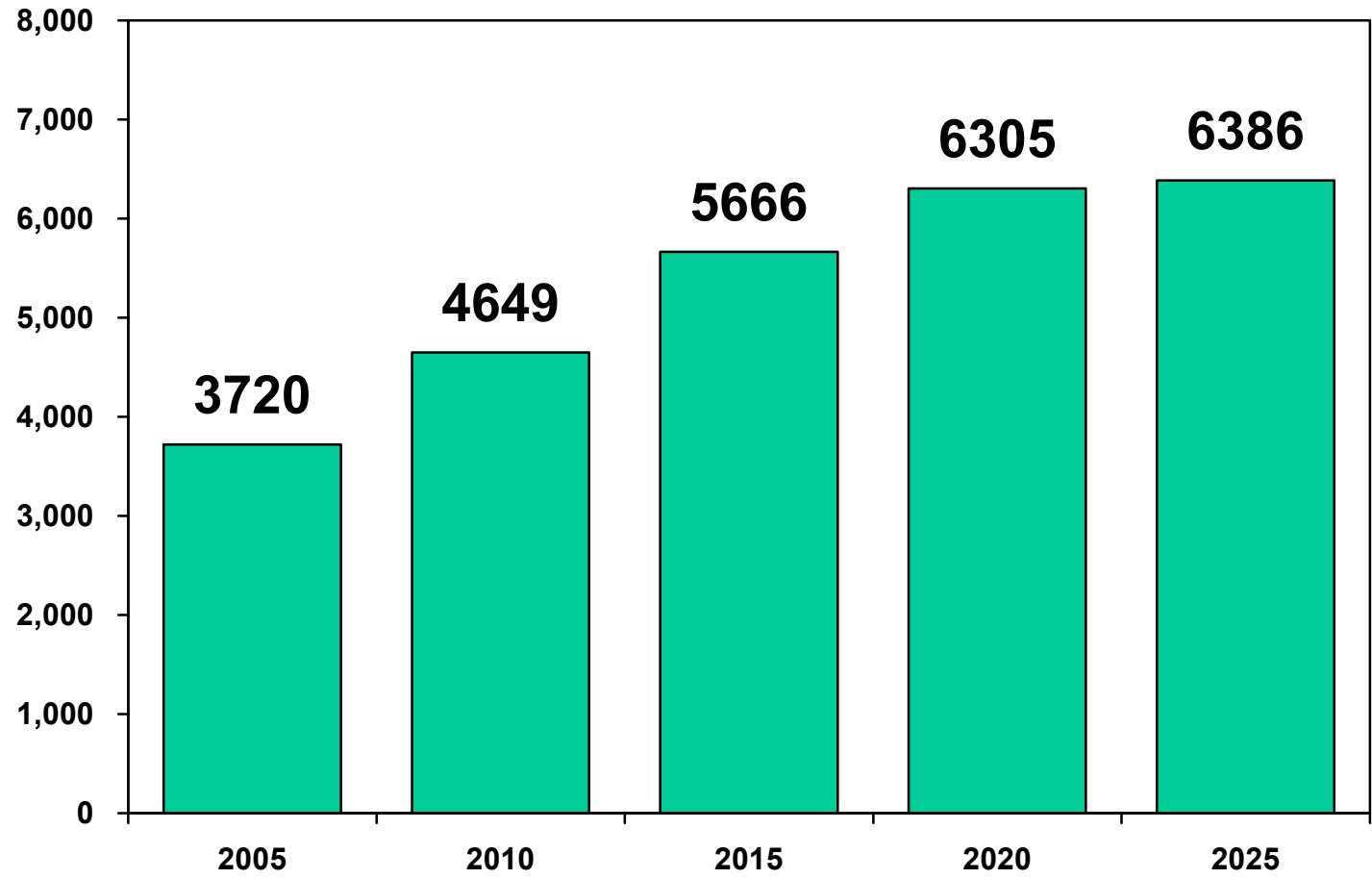
Elk Grove – Now and the Future



Sources – Elk Grove School District, Elk Grove City Economic Development Department

- Elk Grove population is forecasted to grow to nearly 130,000 people, with over 40,000 housing units and 80,000 K-12 student enrollment by 2010

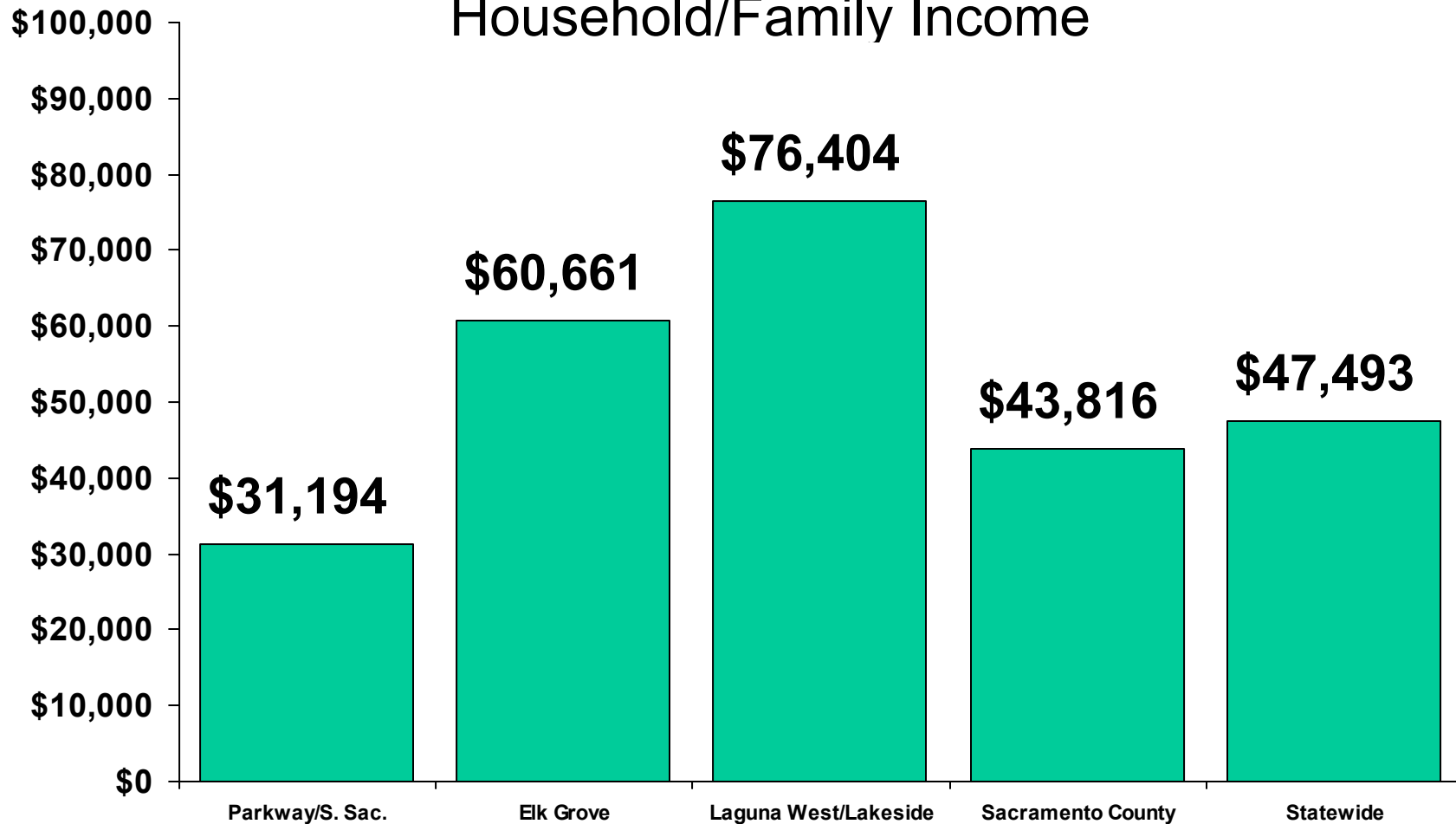
CRC Elk Grove Area Enrollment Projections



Sources – (Adult Population) Elk Grove City Economic Development Department

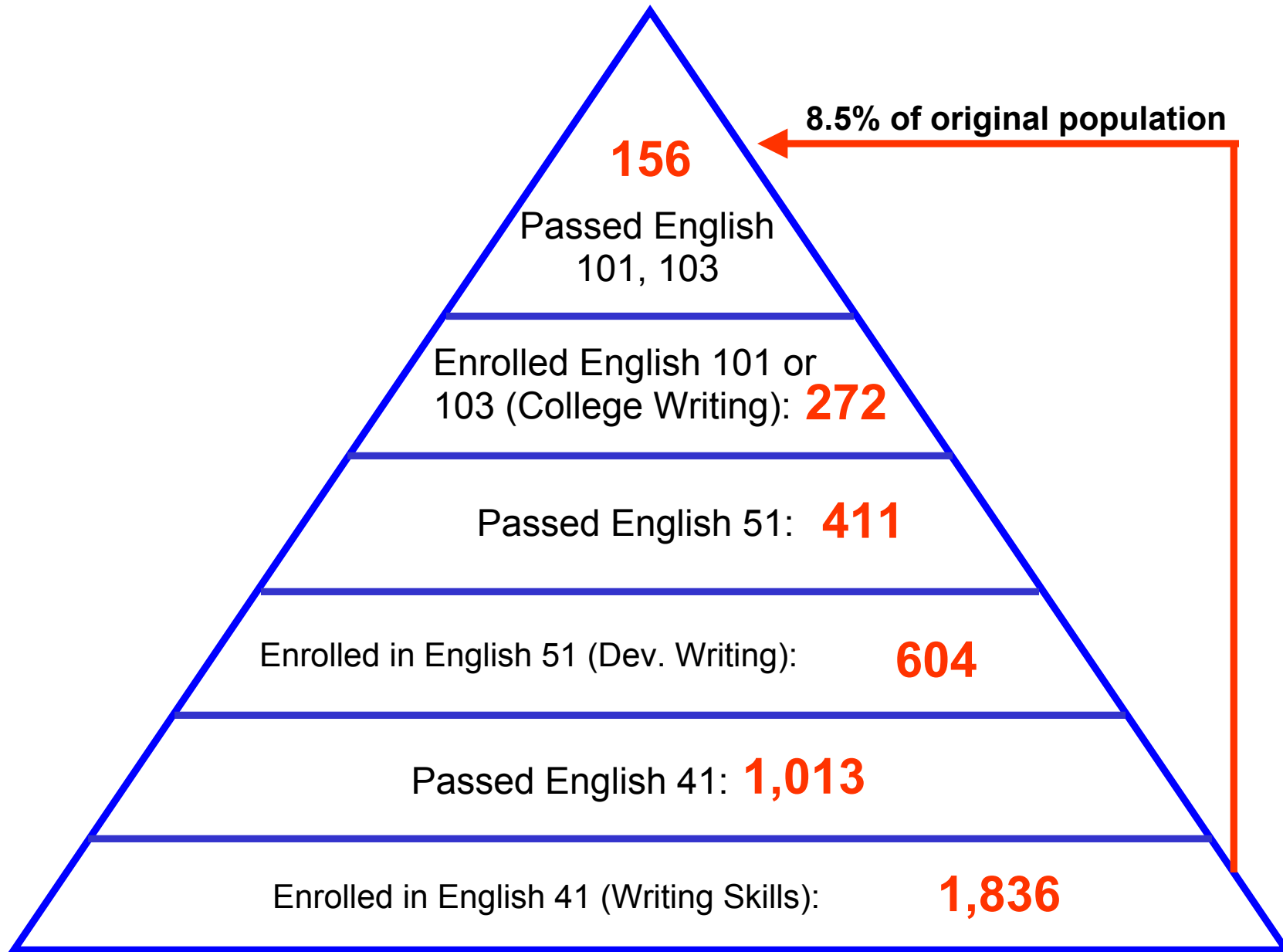
- Assuming that the CRC Elk Grove/Laguna participation rate of 47 per 1000 holds constant, CRC could see nearly 6,400 enrollments from the Elk Grove/Laguna area by the year 2025

Comparison of CRC Service Areas – Median Household/Family Income



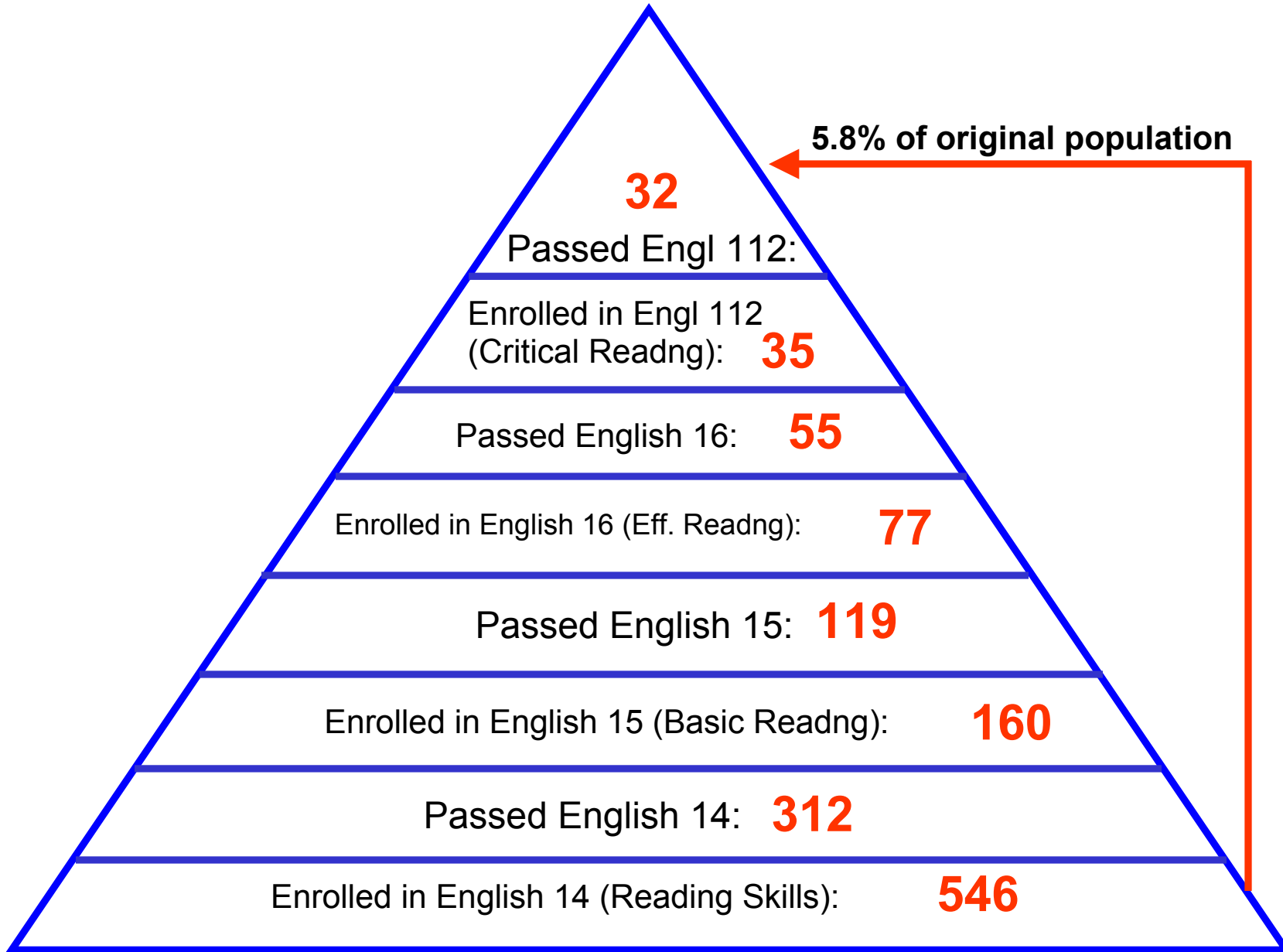
CRC serves a very economically diverse student population ranging from students whose household family income is well less than the County and Statewide averages to those students whose household family incomes are well above the same County and Statewide Averages.

Remedial English Progression (Writing Skills to College Writing) *



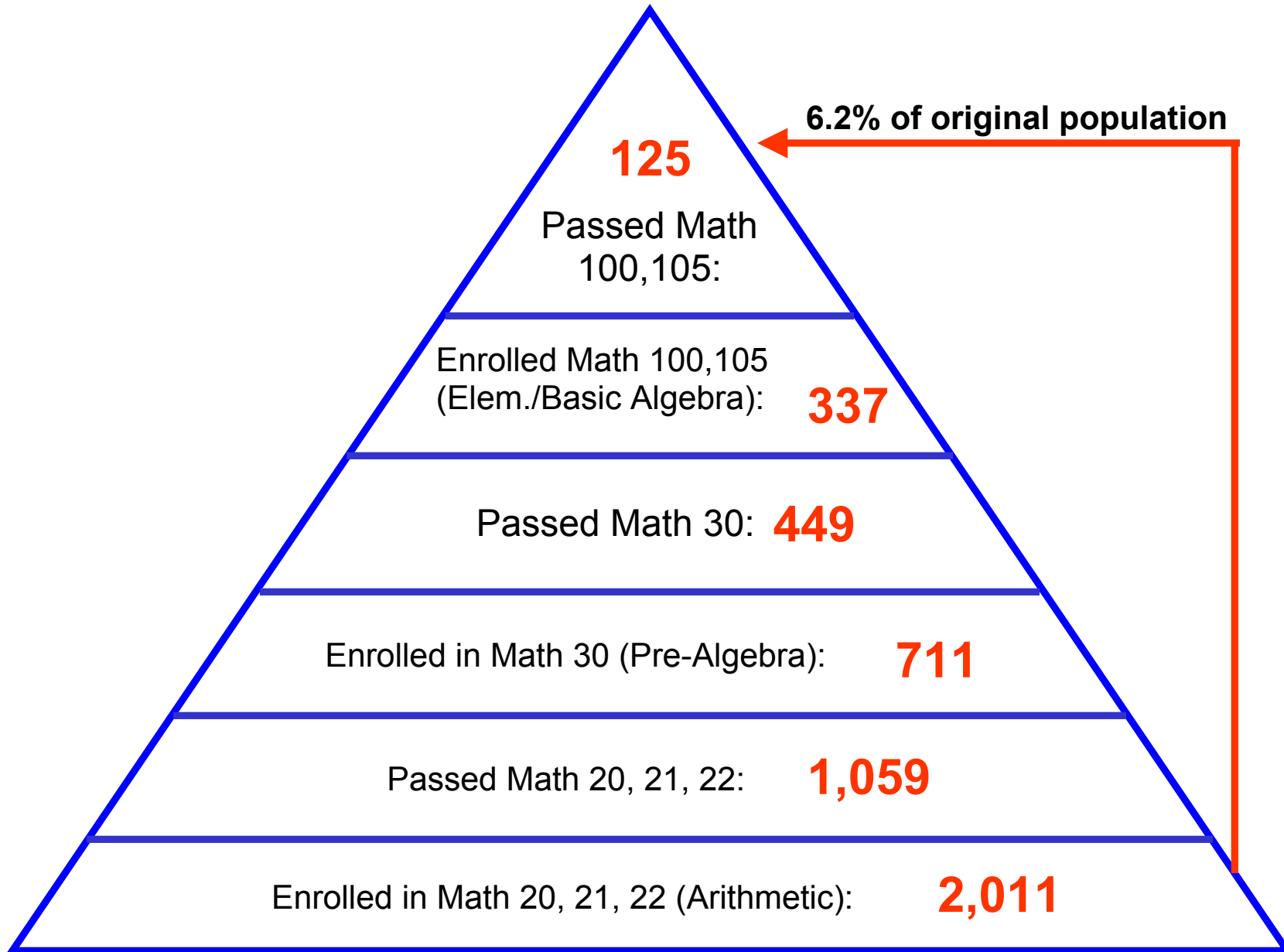
* Based on analyzing transcript records between Fall 1995 and Spring 2004

Remedial English Progression (Reading skills to Crit./Tech. Reading) *



* Based on analyzing transcript records between Fall 1995 and Spring 2004

Remedial Math Progression (Arithmetic to Any Algebra) *



* Based on analyzing transcript records between Fall 1995 and Spring 2004