

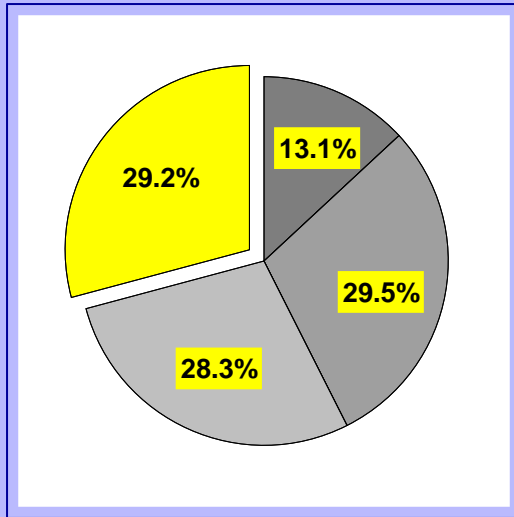


The Demand for Bachelor's Degrees in Florida

1. *Bachelor's degrees and Florida's working population*
2. *Sources of Bachelor's Degrees-*
3. *Elements of Demand*
 - *Florida's labor market*
 - *Students in the pipeline*
4. *Conclusions*

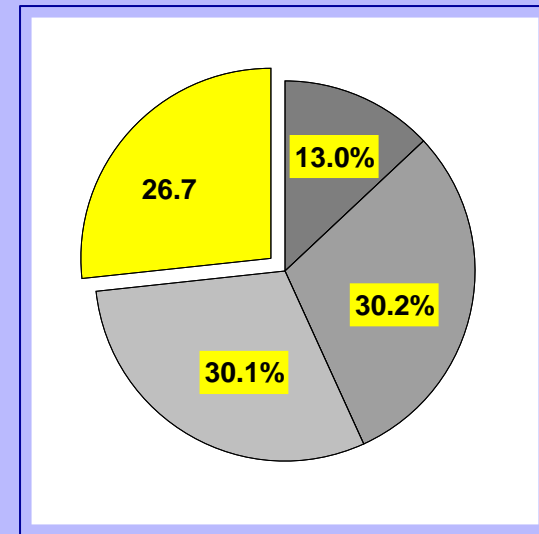
**Jay Pfeiffer, Deputy Commissioner
Accountability, Research and Measurement
Florida Department of Education**

Educational Attainment of Selected Labor Force-Aged Populations (Ages 25-64)

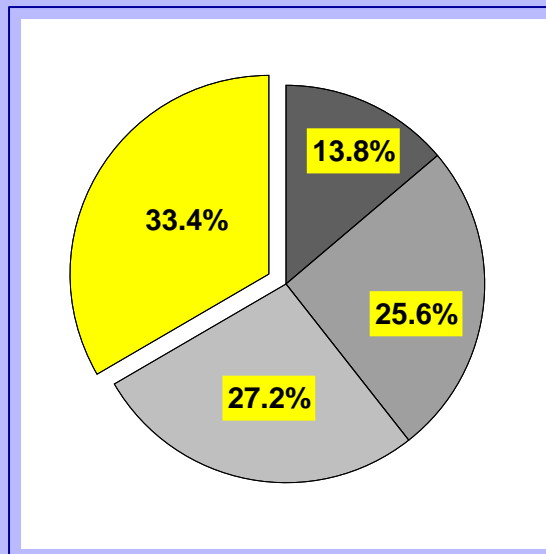


United States

- < High School
- High School Graduate
- Some College/Associate
- Bachelors Degrees or more



Florida



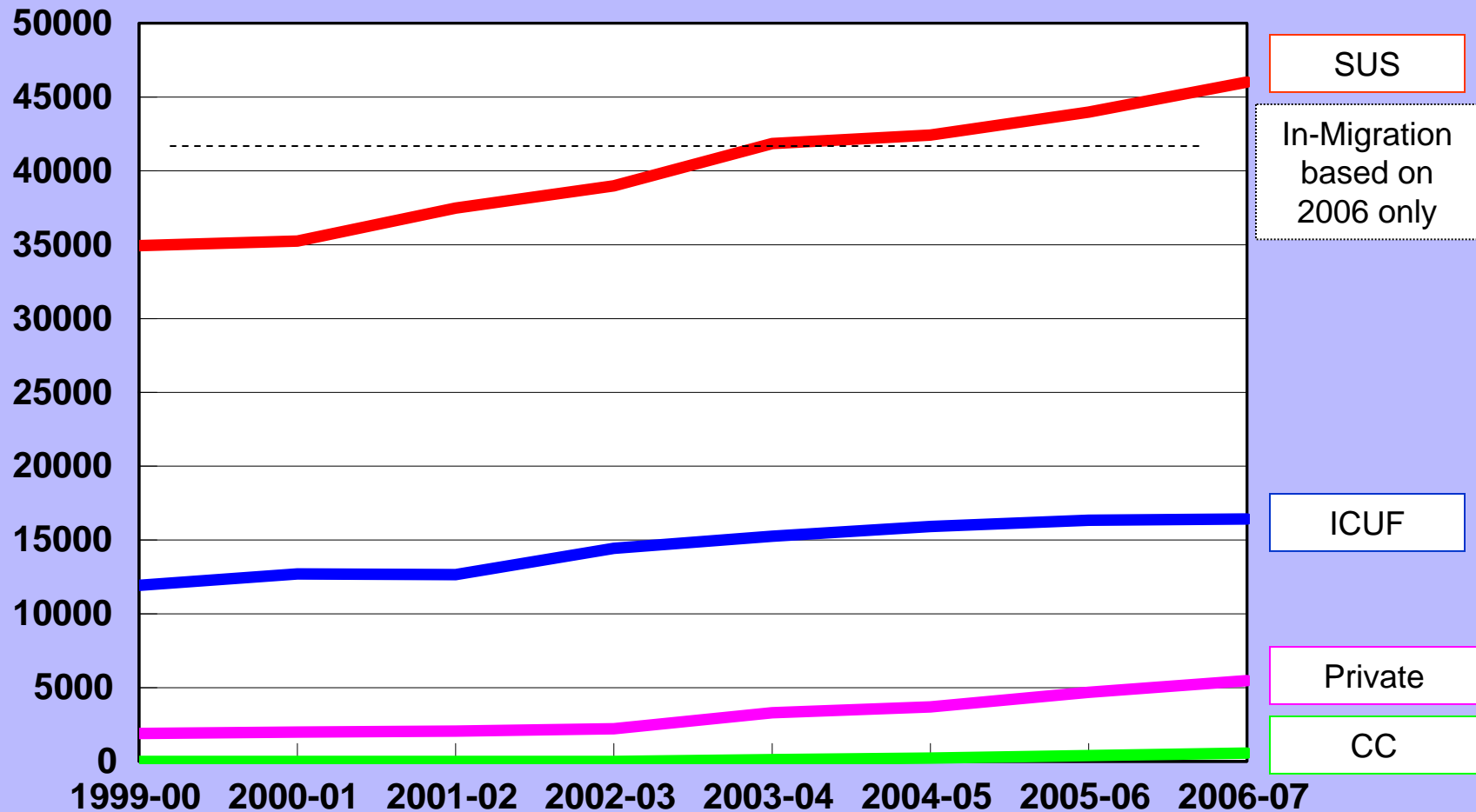
Ten Most Productive States

Bachelor's Degree Attainment and Gross Domestic Product

State	GDP Per Capita	Population 25-64 with Bachelors degree or higher
United States	\$37,545	29.2%
Florida	\$33,718	26.7%
Delaware	\$59,288	29.1%
Connecticut	\$50,332	36.6%
Massachusetts	\$46,721	40.8%
New York	\$46,617	33.8%
New Jersey	\$44,885	36.8%
Alaska	\$43,748	27.5%
Colorado	\$41,798	35.9%
Virginia	\$41,702	35.1%
California	\$41,663	30.1%
Minnesota	\$41,295	33.2%

Sources: 2006 American Community Survey, U.S. Bureau of the Census; Bureau of Economic Analysis (2006 GDP by State)

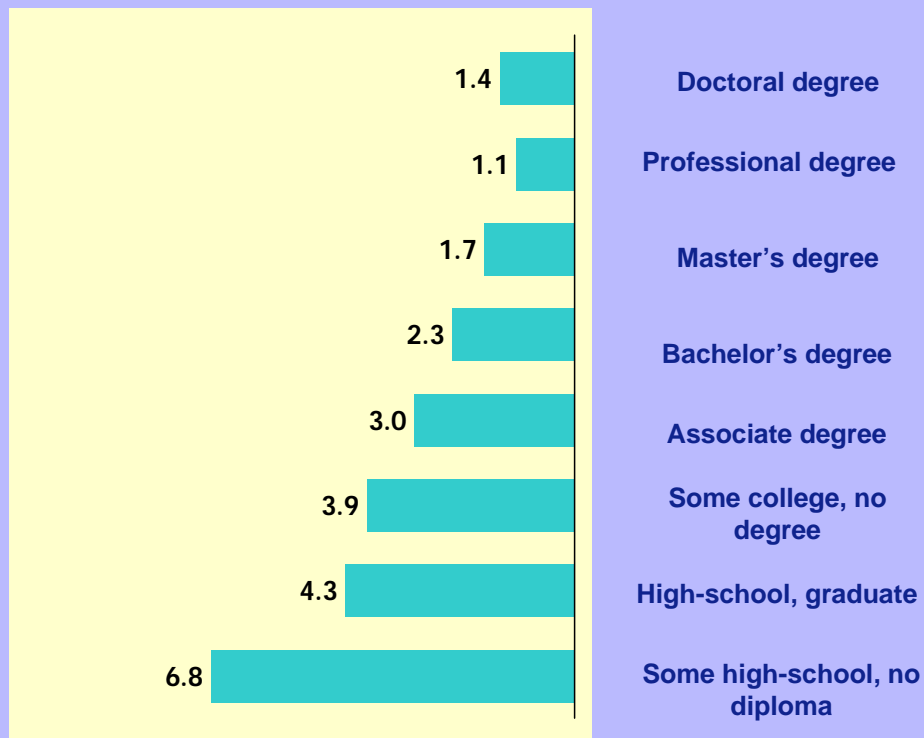
Sources of Bachelor's Degrees in Florida



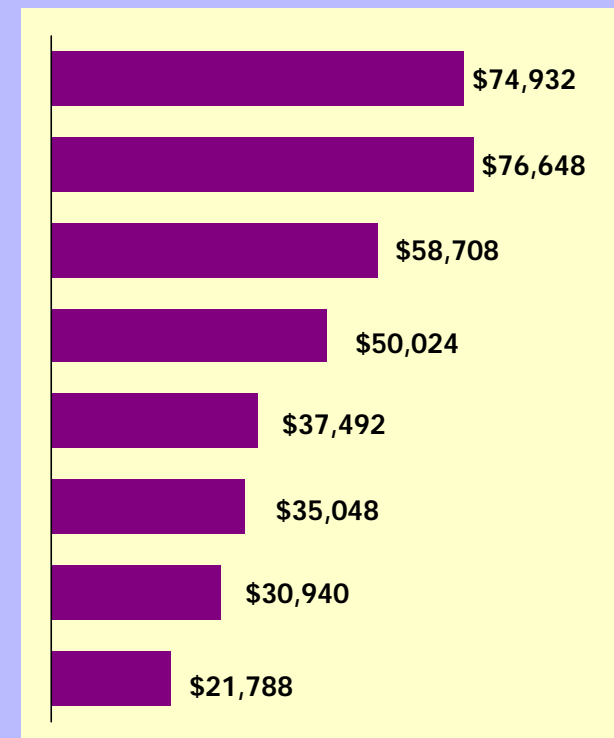
Source: FETPIP, IPEDS, NCHEMS

National Data: Labor Force Information by Credential Earned

Unemployment Rate (Percent)



Median Earnings (Dollars)

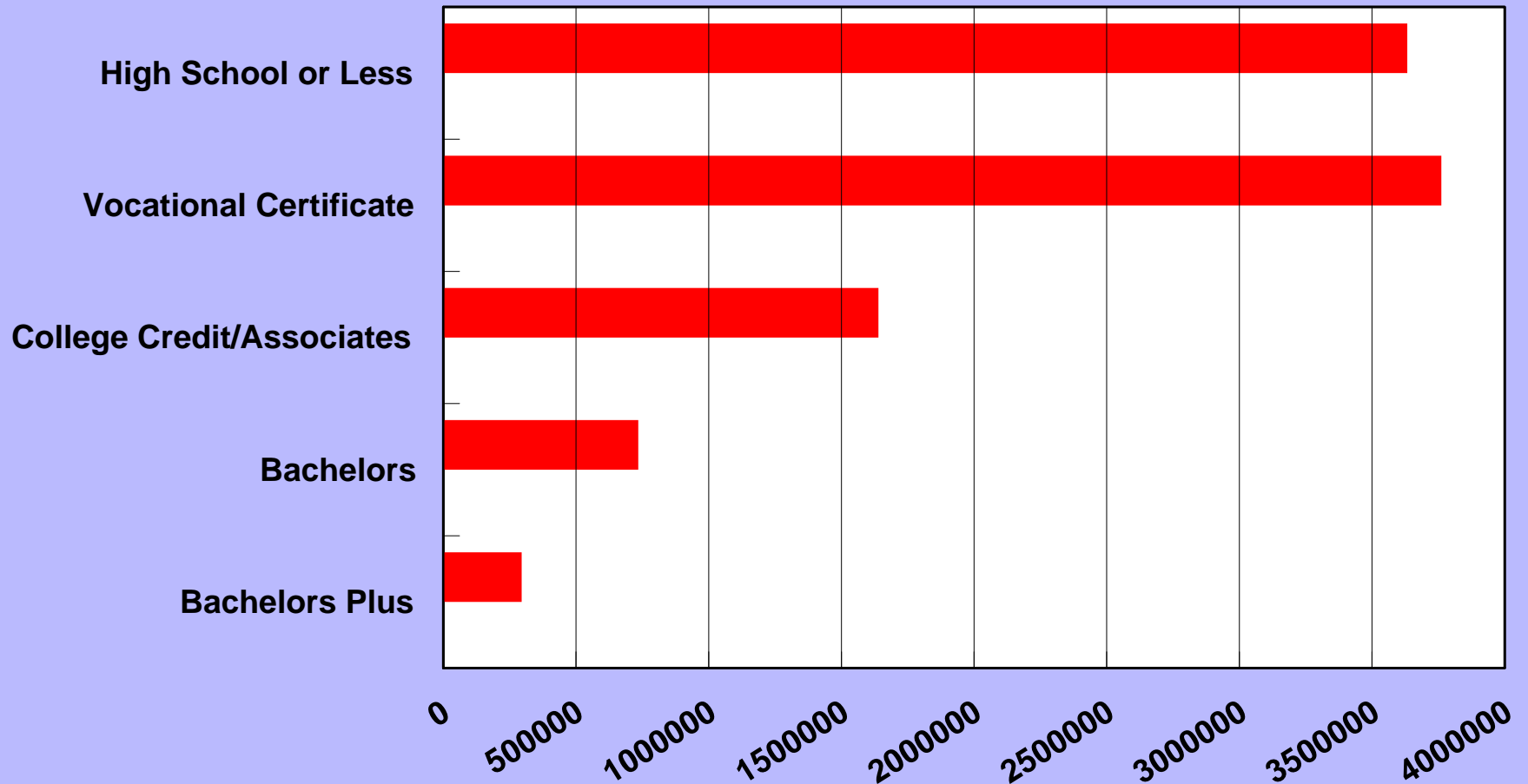


Notes: Unemployment and earnings for workers 25 and older, by educational attainment; earnings for full-time wage and salary workers

Sources: Unemployment rate, 2006 annual average: Bureau of Labor Statistics; 2006 Weekly Median Earnings (multiplied by 52 weeks), Bureau of the Census.

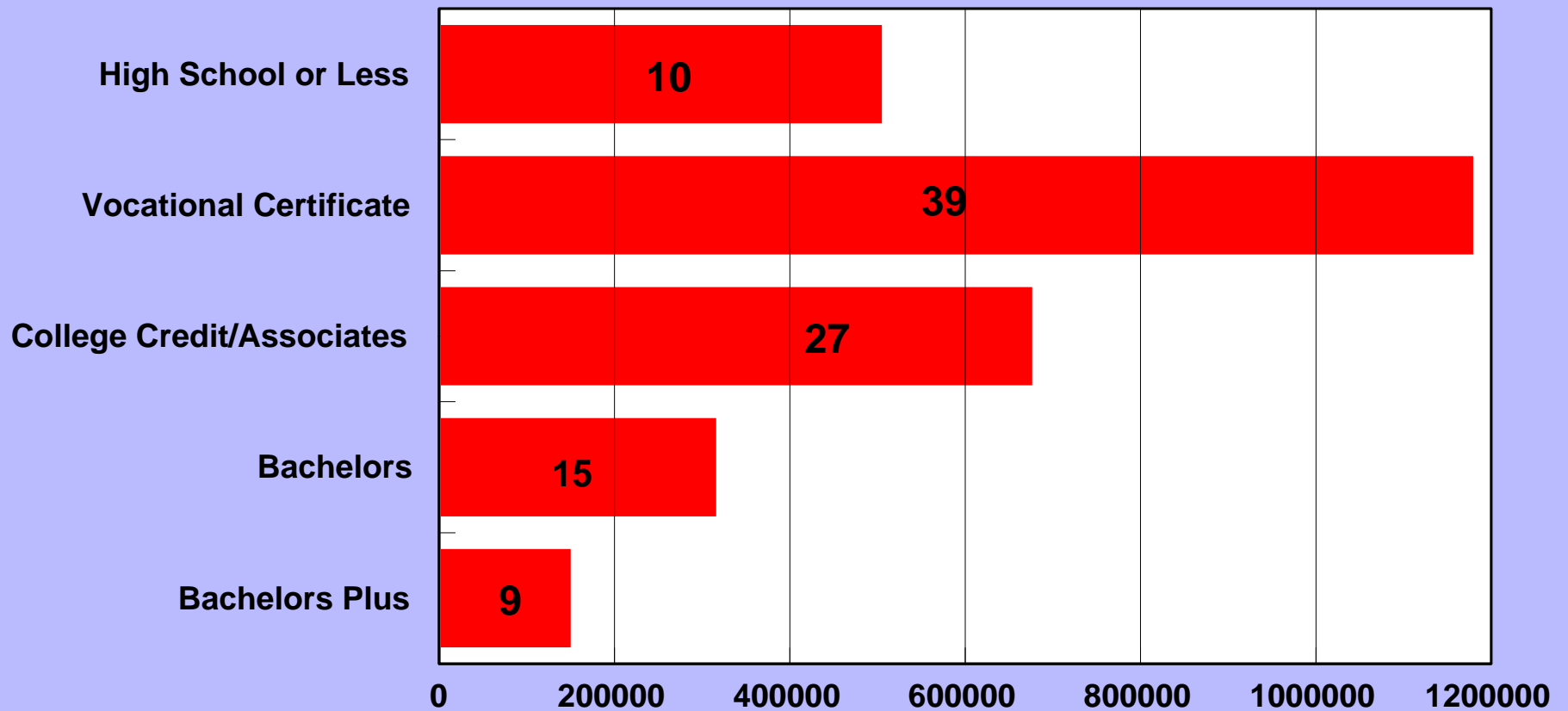
Occupational Distribution sorted by Minimum Educational Requirements in 2016

10,072,029 Jobs projected by 2016 in Florida



Source: Agency for Workforce Innovation

100 Fastest Growing Occupations to 2016 by Minimum Educational Requirements



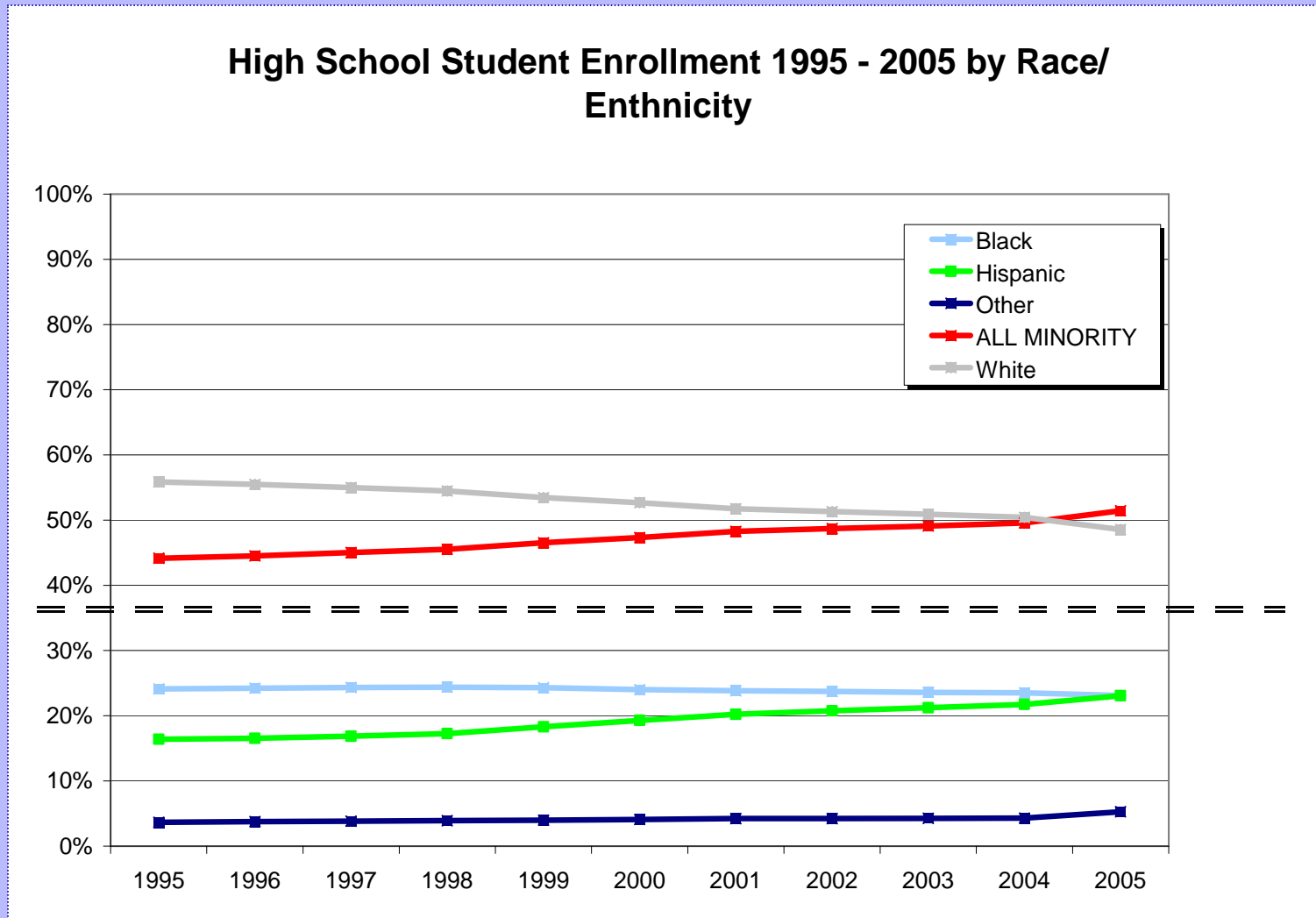
Includes occupations with at least 4000 jobs in 2008;
Occupations growing at 2% per year or greater.

Top Florida Occupations Requiring a Bachelor's Degree in 2016 – Ranked by Several Factors

Occupational Title	Employment		Occupational Increase (2008-2016)	Annual % Change	2008 Hourly Average Wage
	2008	2016			
Computer Software Engineers, Systems Software	13,989	17,747	3,758	3.36	40.24
Physician Assistants	4,468	5,687	1,219	3.41	40.53
Business Teachers, Postsecondary	3,953	4,915	962	3.04	48.26
Civil Engineers	15,326	18,767	3,441	2.81	37.91
Management Analysts	54,142	65,028	10,886	2.51	37.87
Physical Therapists	12,204	15,097	2,893	2.96	36.02
Environmental Engineers	2,862	3,648	786	3.43	37.09
Computer Science Teachers, Postsecondary	1,827	2,265	438	3.00	43.02
Agricultural Sciences Teachers, Postsecondary	855	1,081	226	3.30	51.03
Industrial Engineers	9,215	11,429	2,214	3.00	33.19
Special Education Teachers, Preschool - Elementary	10,946	13,448	2,502	2.86	32.72
Nursing Instructors and Teachers, Postsecondary	1,797	2,203	406	2.82	39.55
Occupational Therapists	5,360	6,485	1,125	2.62	34.73
Engineering Managers	4,642	5,357	715	1.93	54.98
Education Administrators, Elementary and Secondary	6,866	7,789	923	1.68	51.74
Human Resources Managers, All Other	1,892	2,249	357	2.36	43.82
Hydrologists	614	811	197	4.01	36.32
Elementary School Teachers, Except Special Education	75,241	88,774	13,533	2.25	31.31
Kindergarten Teachers, Except Special Education	11,418	13,747	2,329	2.55	31.07
Education Administrators, Postsecondary	2,976	3,515	539	2.26	40.61
Forestry & Conservation Teachers, Postsecondary	94	120	26	3.46	48.58

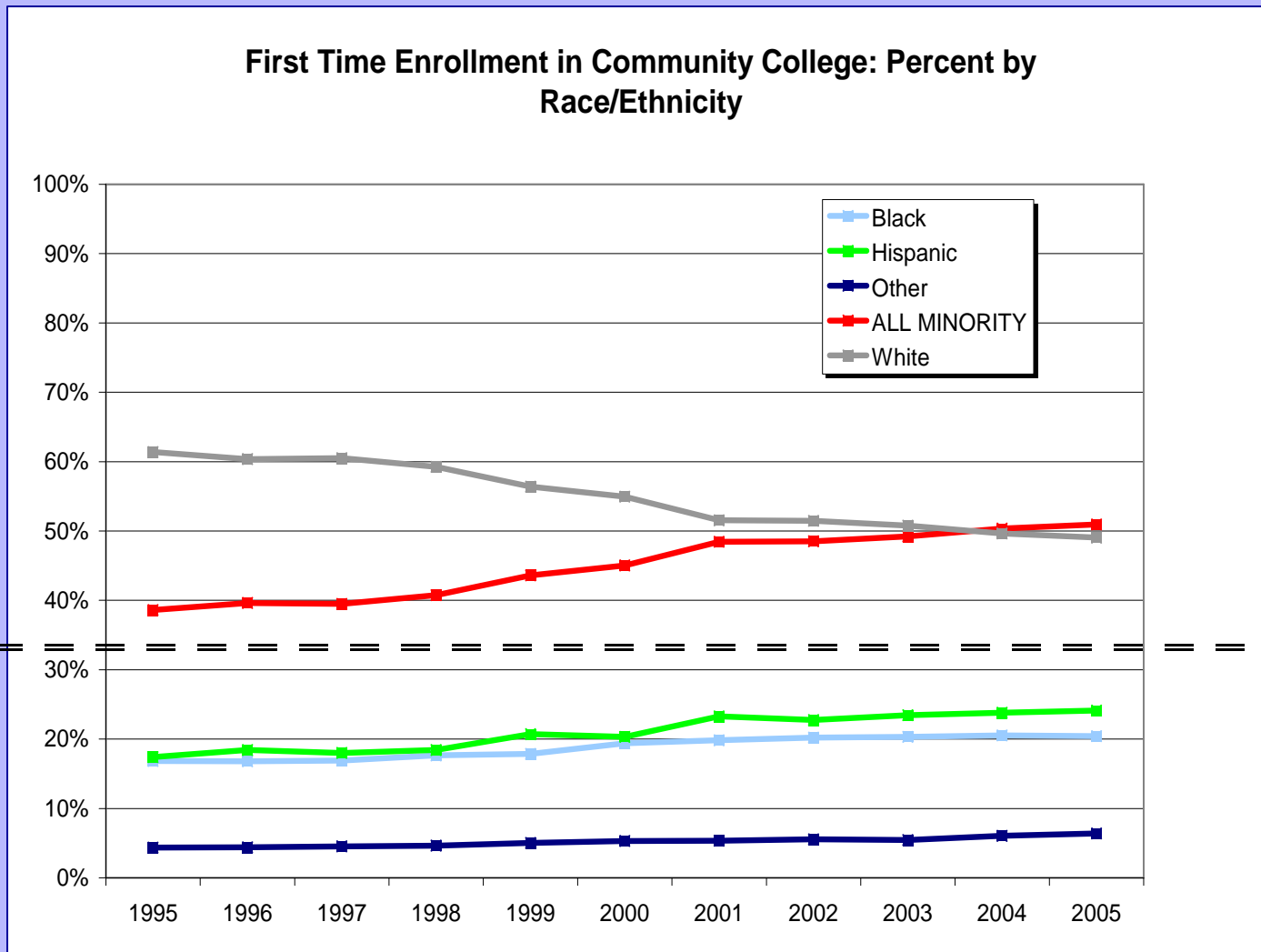
Source: Agency for Workforce Innovation - Data

Higher Proportions of Minority Students are Moving up the Pipeline

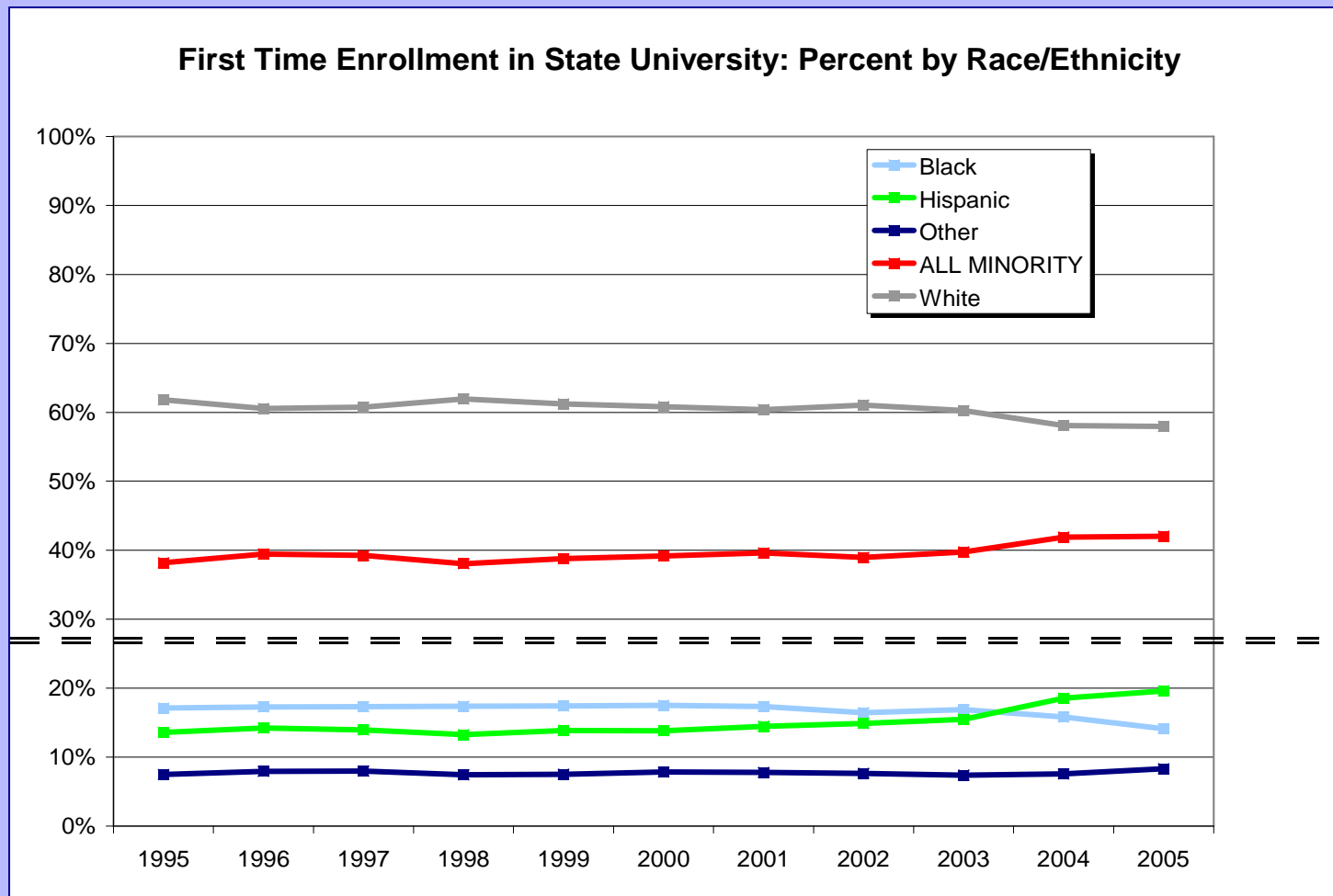


Source: Florida Education Data Warehouse

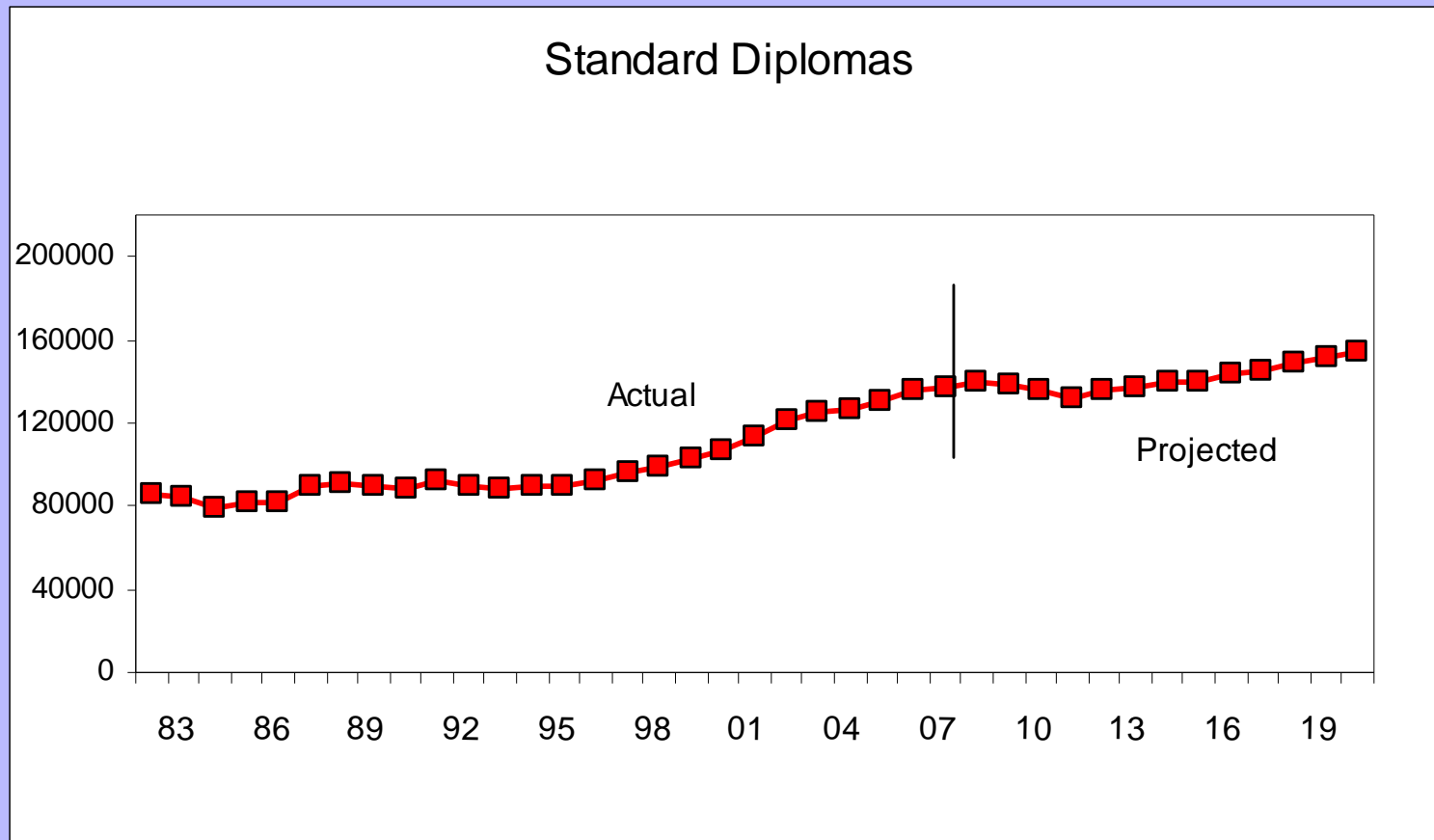
Public School Demographic Changes are Reflected in Community College First Time Enrollees...



Demographic Changes are Not as Reflected in State University First Time Enrollees...

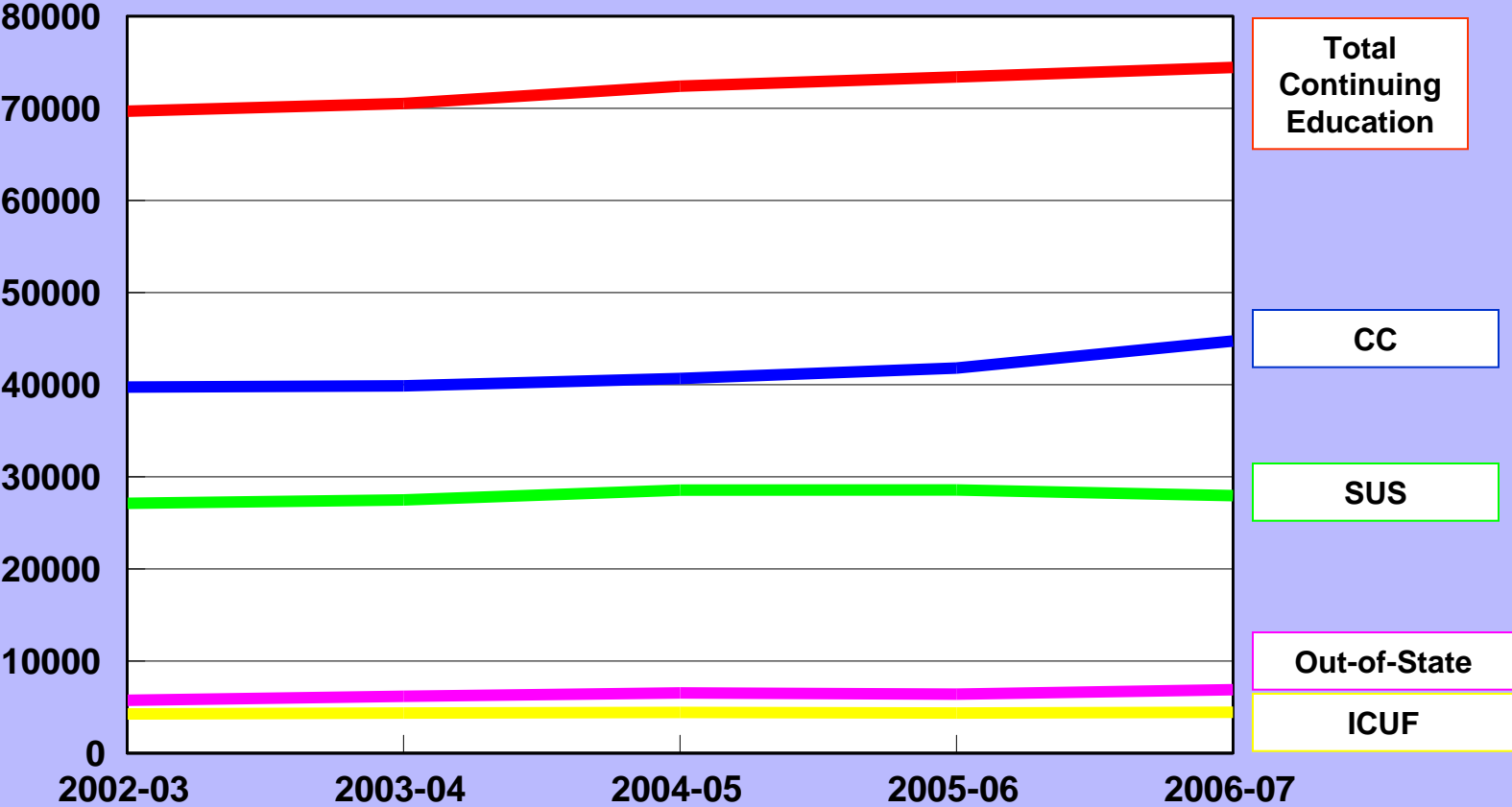


Actual and Projected High School Graduates In Florida 1982-2020



Source: Florida Department of Education; Evaluation and Reporting

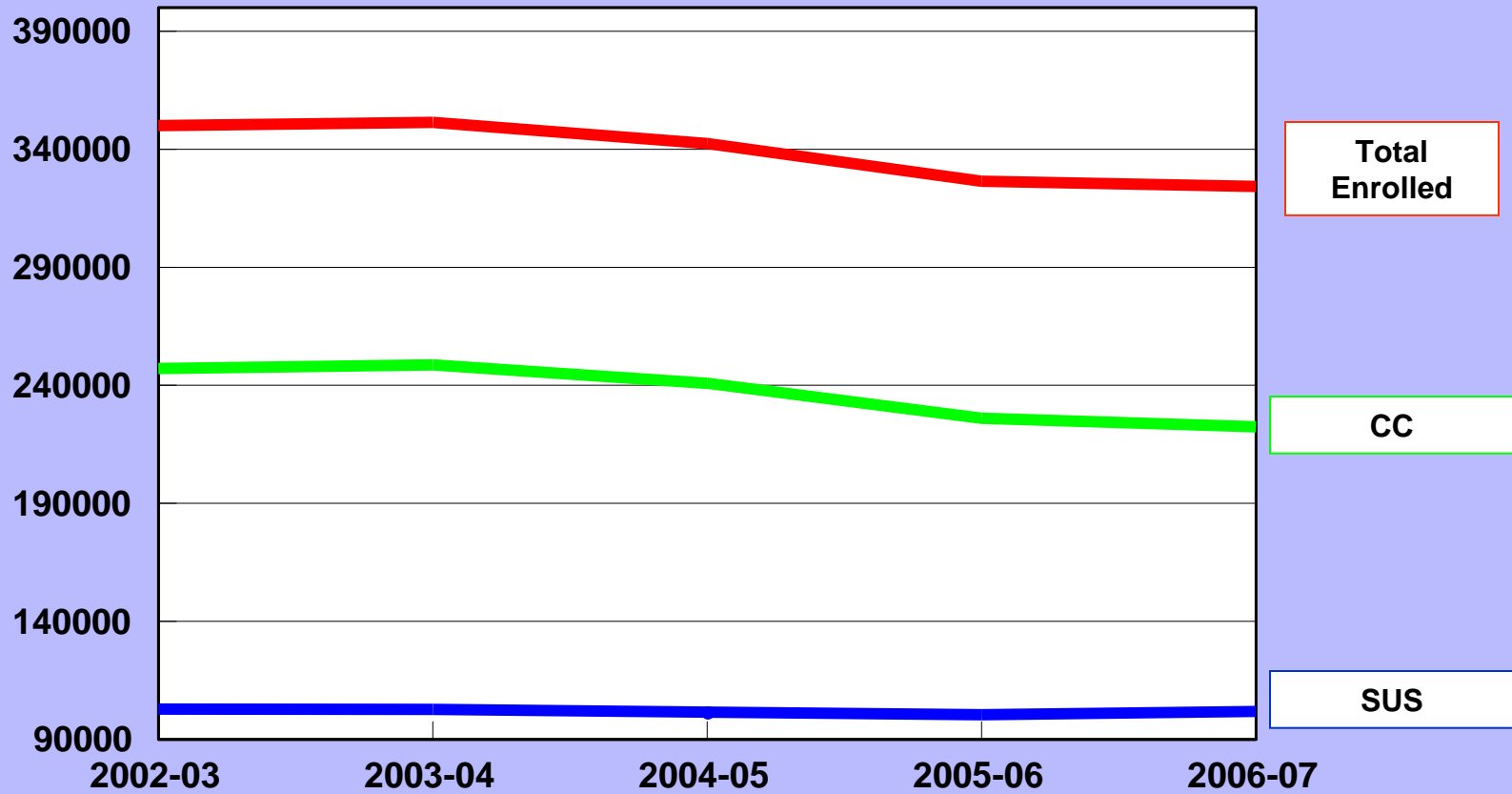
Continuing Education Immediately After High School Graduation 2002 -2007



In the year following graduation with a Standard high School Diploma

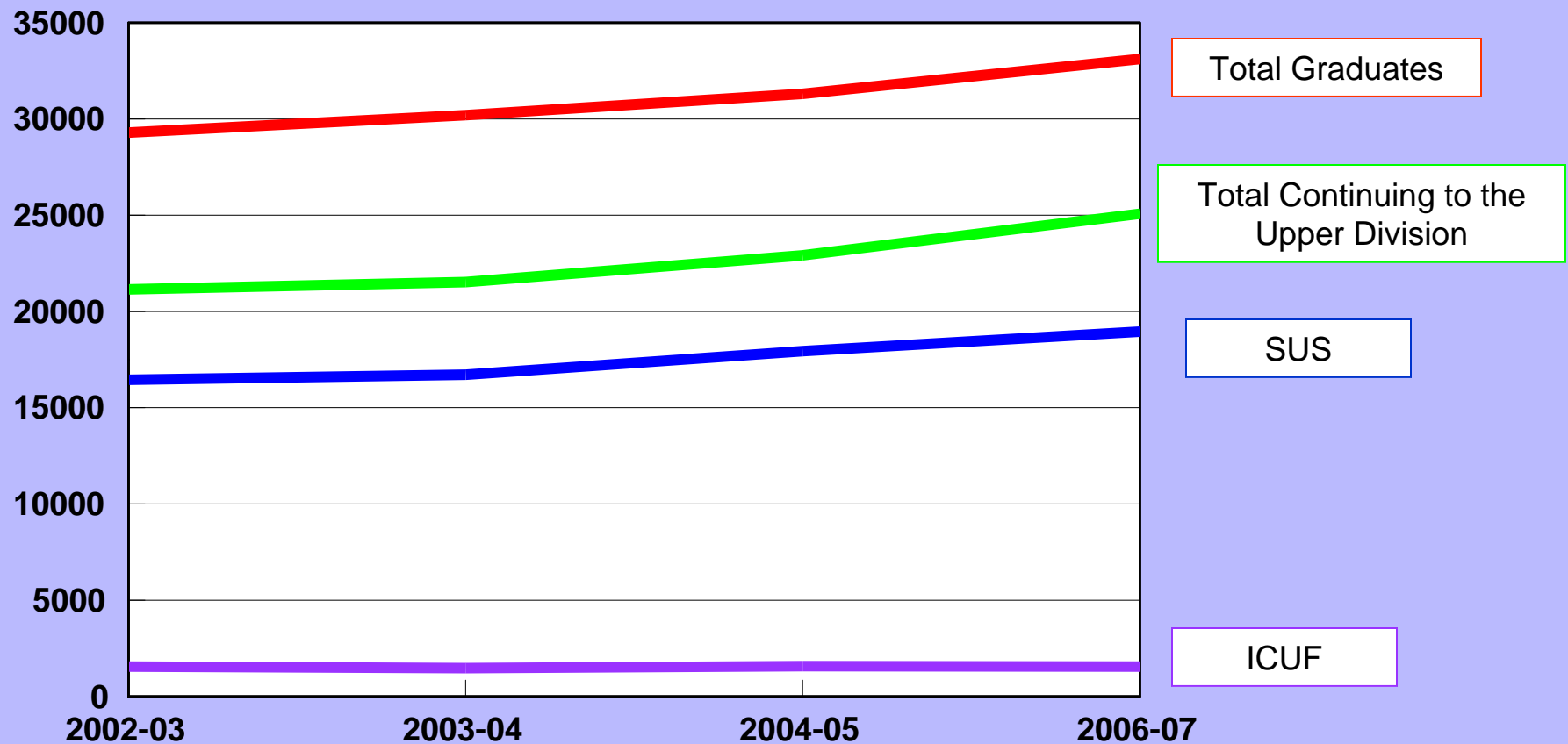
Source: FETPIP

Florida Postsecondary Enrollments After High School Graduation Delayed Starters 2002 -2007



Students between 25 and 65 years of age.

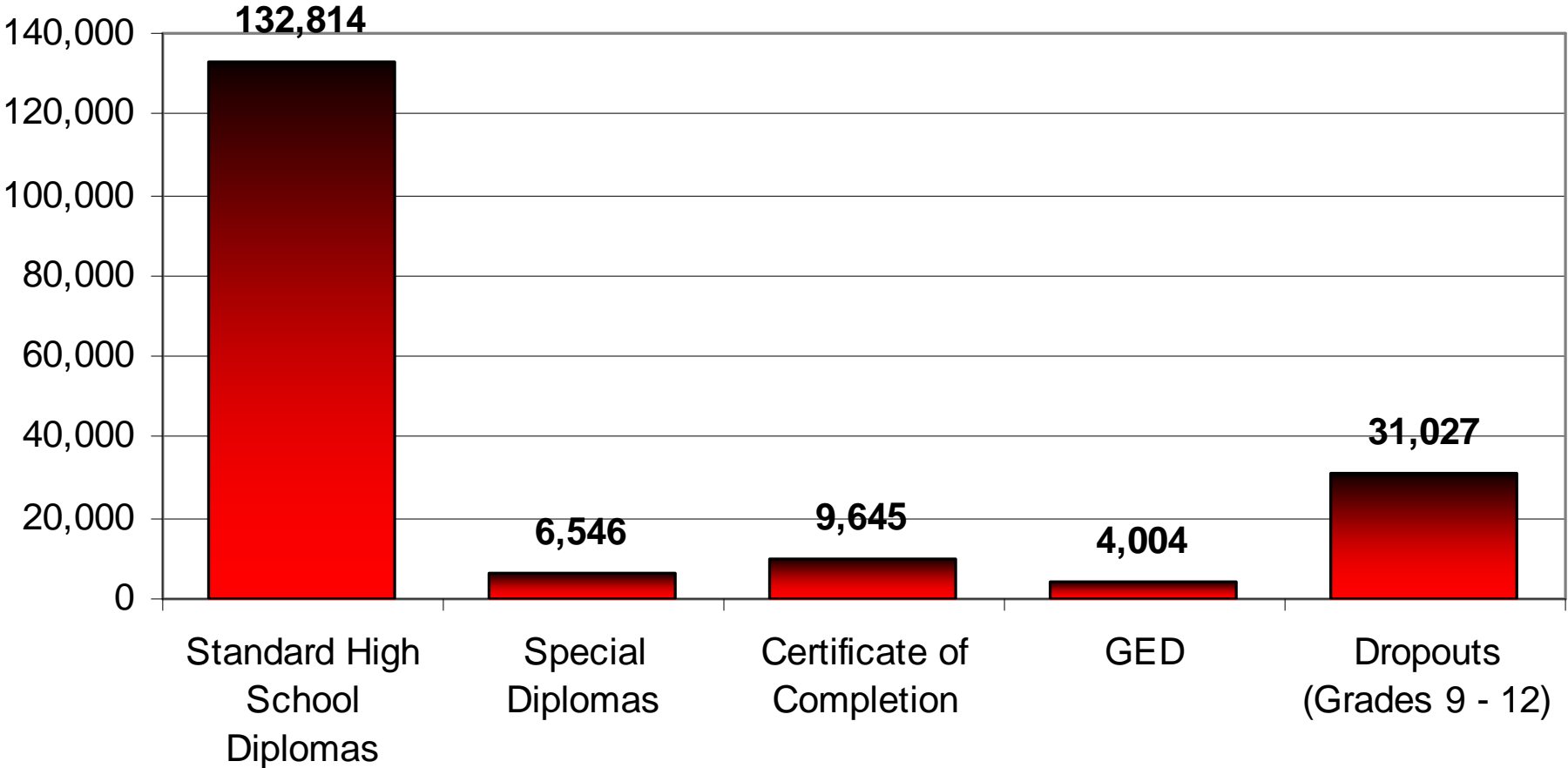
Florida Community College Associate of Arts Graduates Entry into the Upper Division in State Institutions*



Source: FETPIP

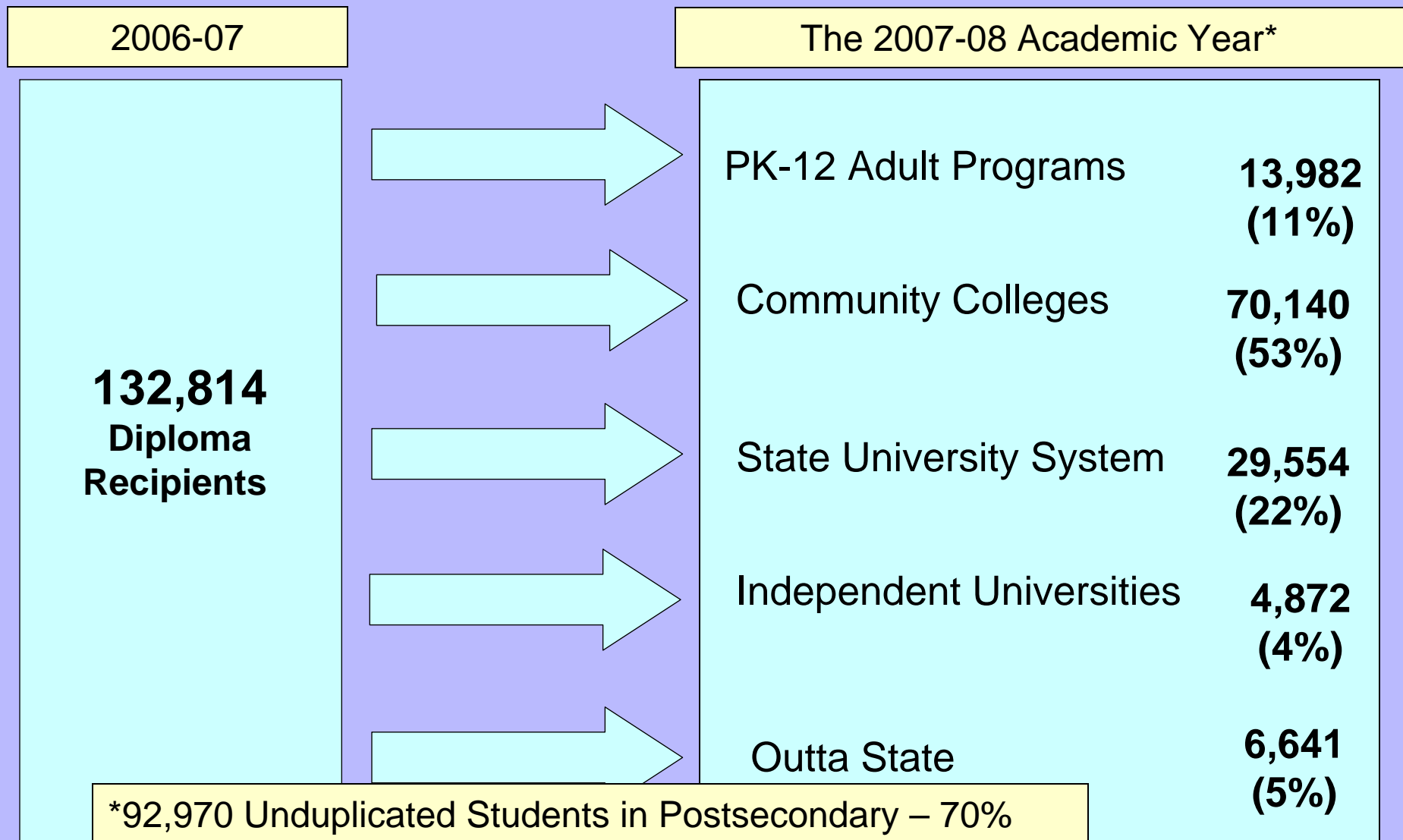
*During the year following graduation from a Florida Community College

How do Florida Students Leave Public High Schools? 2006-07



Source: PK-20 Education Data Warehouse

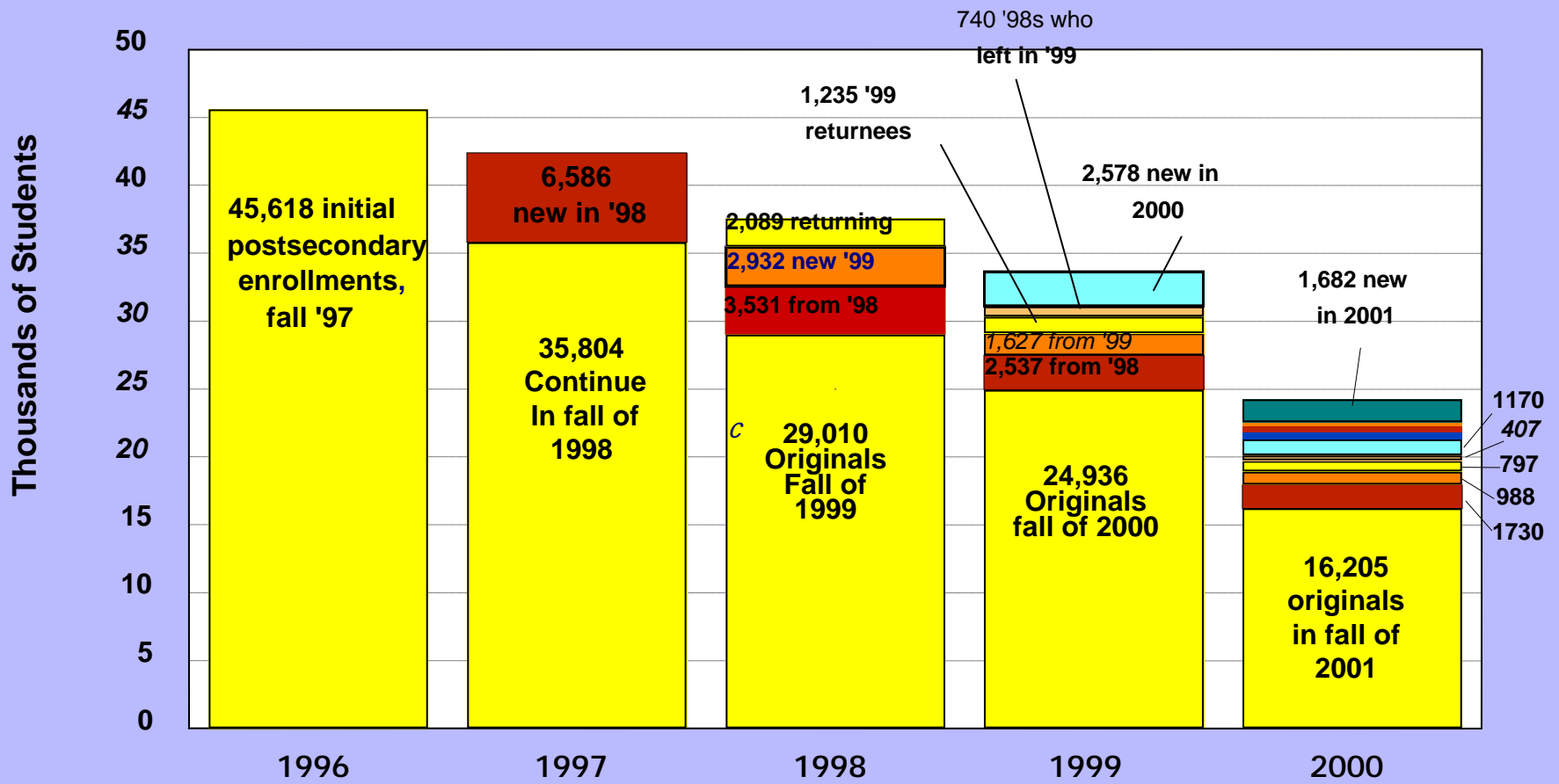
What Happens After They Graduated? - Standard Diplomas to Postsecondary



Source: PK-20 Education Data Warehouse. Note: These data represent preliminary findings.

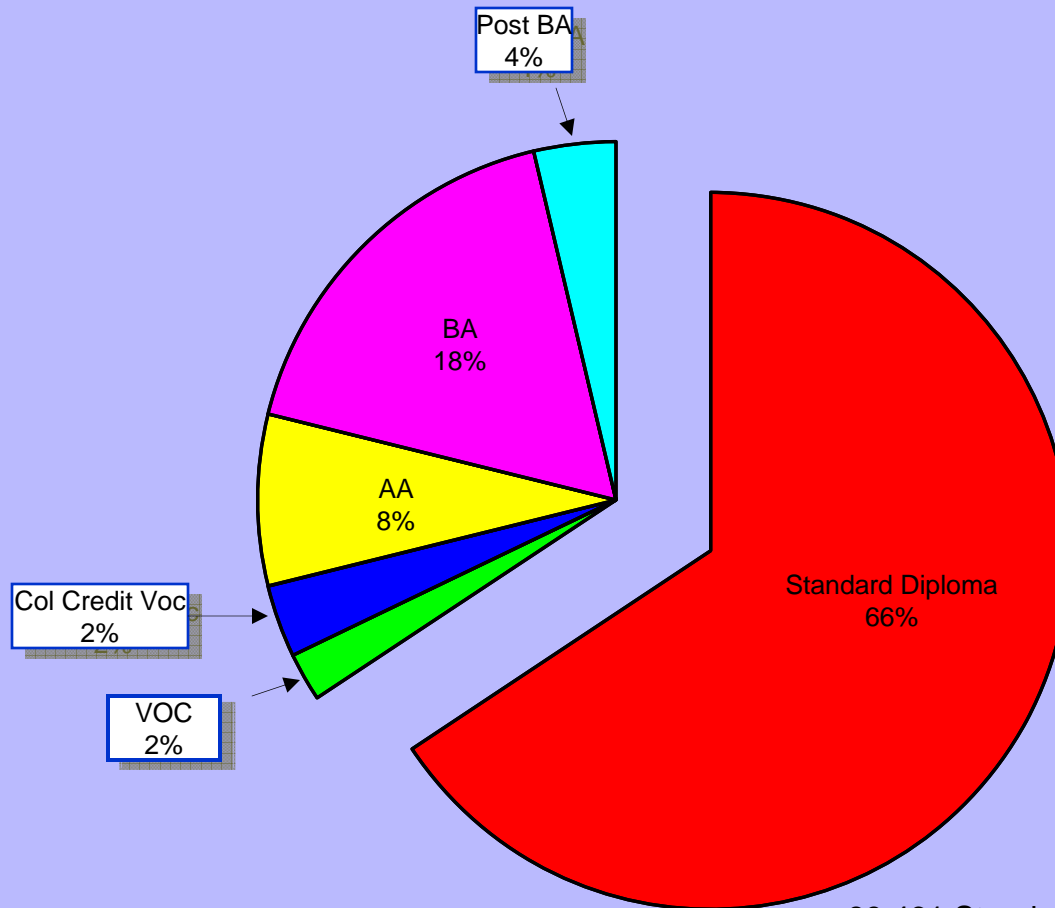
Florida 1995-96 High School Graduates In-State Postsecondary Enrollments Through 2000

N = 89,461 Graduates In Cohort



Source: Florida Education and Training Placement Information Program

Florida Public High School Graduates, Class of 1996, Highest Education Credential Attainment as of 2007



89,461 Standard Diplomas

(15,478 – 17% Never Enrolled in Florida – 6.48% out of State)

Source: K20 Education Data Warehouse

Placement Data for SUS Bachelor's Degrees

Florida has regularly collected employment placement data since the late 1980s. These data can be used to identify bachelor's degree disciplines where a substantial number of graduates are placed in Florida jobs plus additional details such as quarterly earnings. In the example below, disciplines were sorted first by placement rate, then by earnings.

<u>DISCIPLINE</u>	<u>Total N</u>	<u>EMP</u>	<u>% EMP</u>	<u>AVG EARNINGS</u>
EDUCATION	5135	4035	79%	\$8,661
ENGINEERING TECHNOLOGY	439	326	74%	\$12,944
PUBLIC ADMINISTRATION AND SERVICE	996	718	72%	\$9,156
BUSINESS AND MANAGEMENT	15009	9703	65%	\$9,556
COMPUTER & INFORMATION SCIENCES	1056	682	65%	\$11,105
HEALTH PROFESSIONS & RELATED SCIENCE	5166	3330	64%	\$10,910
LIBERAL/GENERAL STUDIES	1790	1106	62%	\$7,870
PSYCHOLOGY	4256	2617	61%	\$6,108
ENGLISH	2126	1300	61%	\$6,642
MASS COMMUNICATION	3302	2018	61%	\$6,667
PROTECTIVE SERVICES	2260	1356	60%	\$7,891

Note: These data are for 2006-07 graduates based on Florida employment in the late fall of 2007.

Key Sources of Strategies and Direction

- **Enterprise Florida, Inc.**
 - Industry Sectors
 - Roadmap to Florida's Future
- **Council of 100, 2006 Report**
- **Chamber of Commerce Cornerstone Report**
- **Workforce Florida, Inc., Targeted Industries, Statewide and Regional**
- **Florida High-Tech Corridor**
- **Agency for Workforce Innovation**
- **Florida Hospital Association and Department of Health**
- **State Board of Education, Critical Teachers**
- **Florida Board of Governors**

General Areas of Emphasis

- **Business & Global Economics**
 - Financial Services
 - Professional Services
 - Hospitality
- **Sciences**
 - Life Sciences
 - Biotechnology Mfg.
 - Scientific & Technical Services
- **Medical Services**
 - Healthcare
 - Social Services
- **Education**
- **Technology**
 - Research and Development
 - Emerging Technologies
- **Sustainable Development**
 - Energy
 - Environment
- **Information Technology**
- **Disaster Management**
 - Homeland Security
 - Hurricane Preparedness
- **Engineering**
 - Aerospace/Aviation
 - Manufacturing
 - Construction
- **Arts/Communication/Interactive Entertainment**

Concluding Remarks

1. The linkage between employment opportunity, economic prosperity, and the educational system-particularly postsecondary education-is as critical to the nation's future and to Florida's role in that future.

2. There are sources of data that can and should be used to inform decisions about the types degrees to be offered that are based on historical trends, tempered by recent events. Consider:

- occupational projections by the Agency for Workforce Innovation.**
- occupational needs analysis conducted by state organizations.**
- placement data indicating which disciplines provide educated workers to which Florida industries.**
- regional, as well as state level information from employers and organizations that represent them.**

4. Sources need be considered that look beyond the "status quo" and relatively short term needs of the existing economy toward a new, more competitive economy for Florida.