



Education
Data
Warehouse



Florida Department of Education K-20 Education Data Warehouse

October 21, 2003



Rationale:

1 Florida's public education system recognized as being "data rich".

- "Source Systems"
- "Follow-Up System"

Source systems focused on needs of service delivery sectors

- Longitudinal and cross sector infrequent, inconsistent

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Systems, processes, elements not sufficiently integrated to support the information needs of Florida's K-20 Education System.



Two Years of Development

- Contracted development is complete
- Knowledge transfer has occurred, staff development continues
- Student, staff, facilities, and financial aid data are loaded, 1995-1996 to the latest complete year (2001-2002).
- Loading cycles/processes are operational
- Access through requests for information & data, data marts are in infant stages, will be further developed, refined.

Education Data Warehouse Statistics

Contents

- 8,927,620 Students
- 856,339 Staff
- 15,664 Institutions
- 204,020,307
Student Course
Enrollments

Structure

- ~2,500 Application
Programs Used
- 298 Data Tables
- 4,394 Elements

Education Data Warehouse Statistics

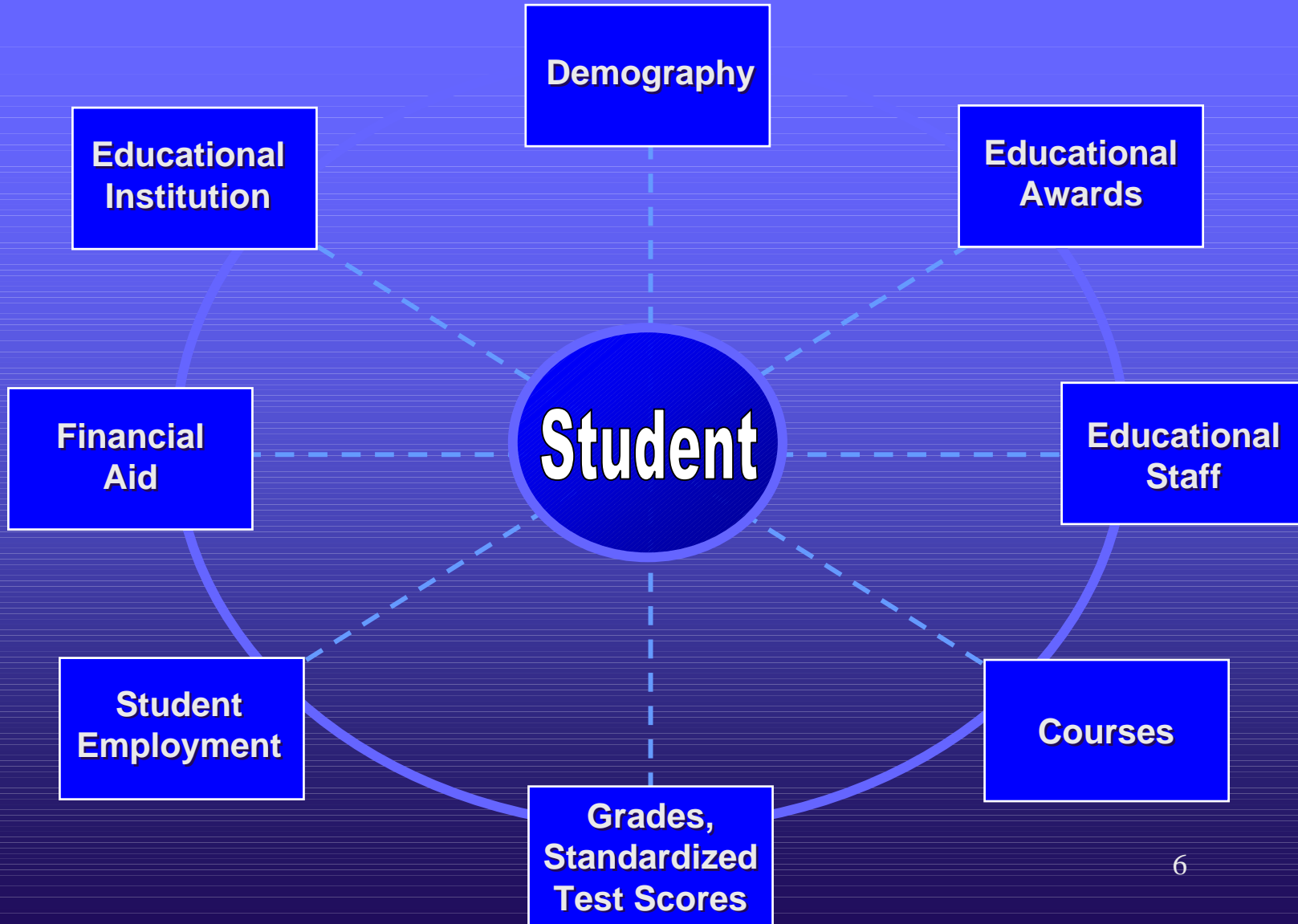
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Examples of Data Elements Describing Students

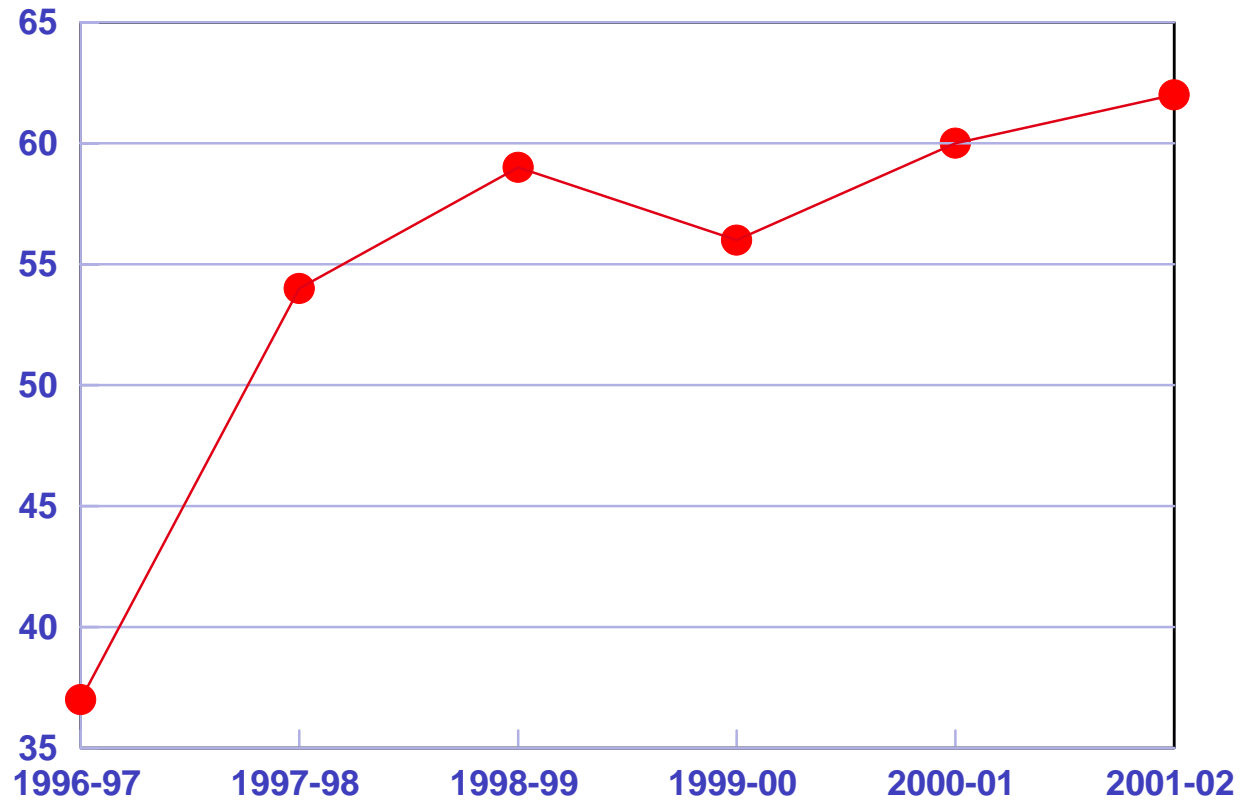




Data Warehouse Application: **The K-20 Education Pipeline**



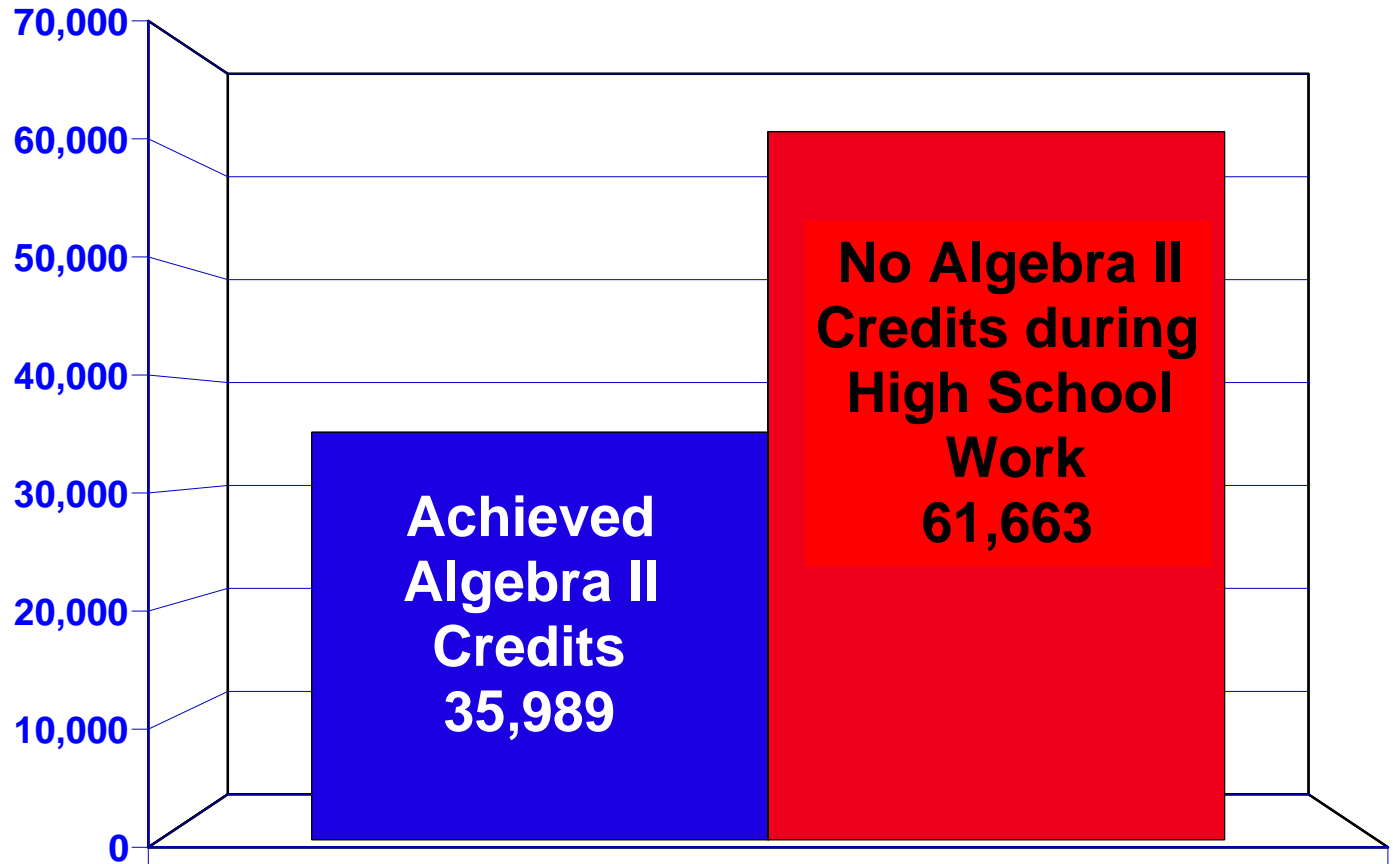
Percentage of High School Completers Receiving Credit for Algebra II



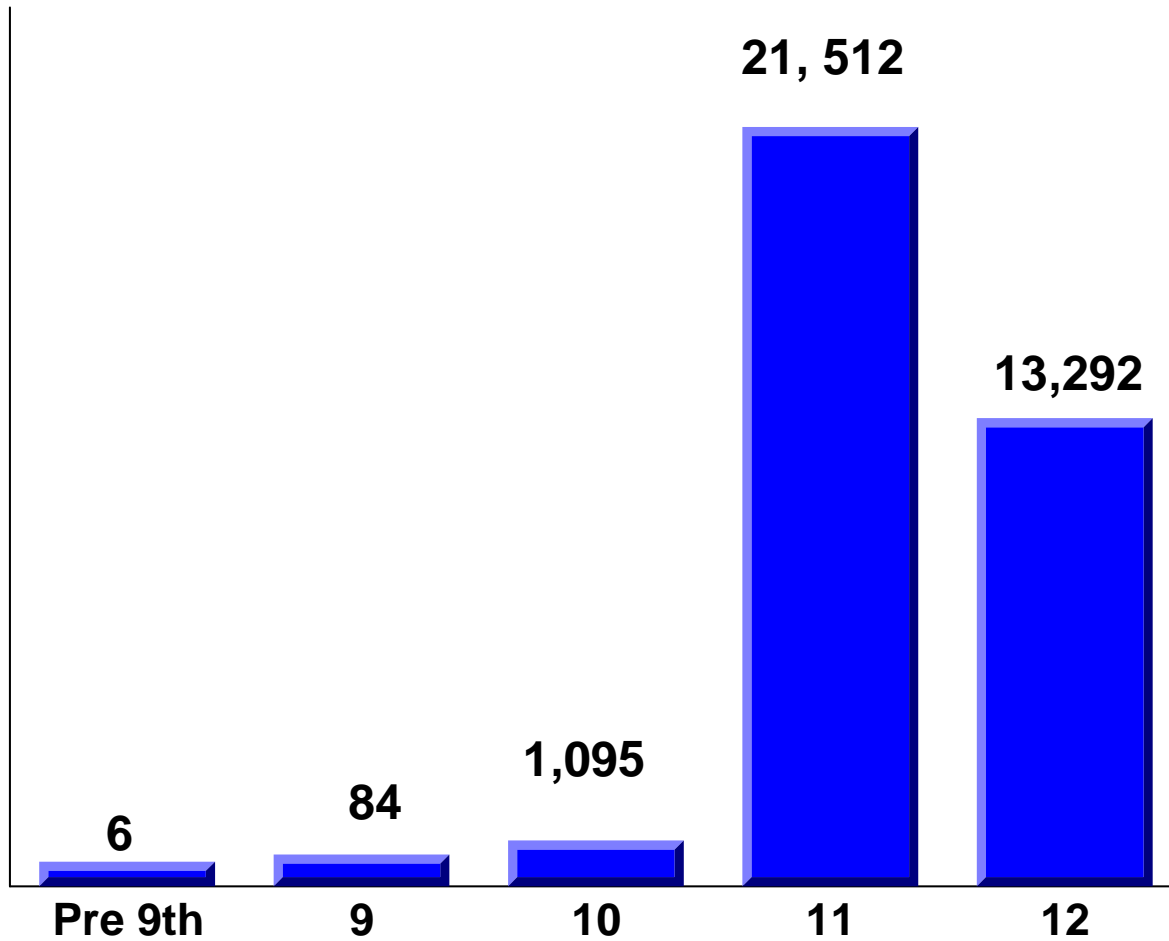
Source: Florida Education Data Warehouse



**1996-1997 Public High School
Completers
Those With Algebra II Credits and Those Without**



Source: Florida Education Data Warehouse

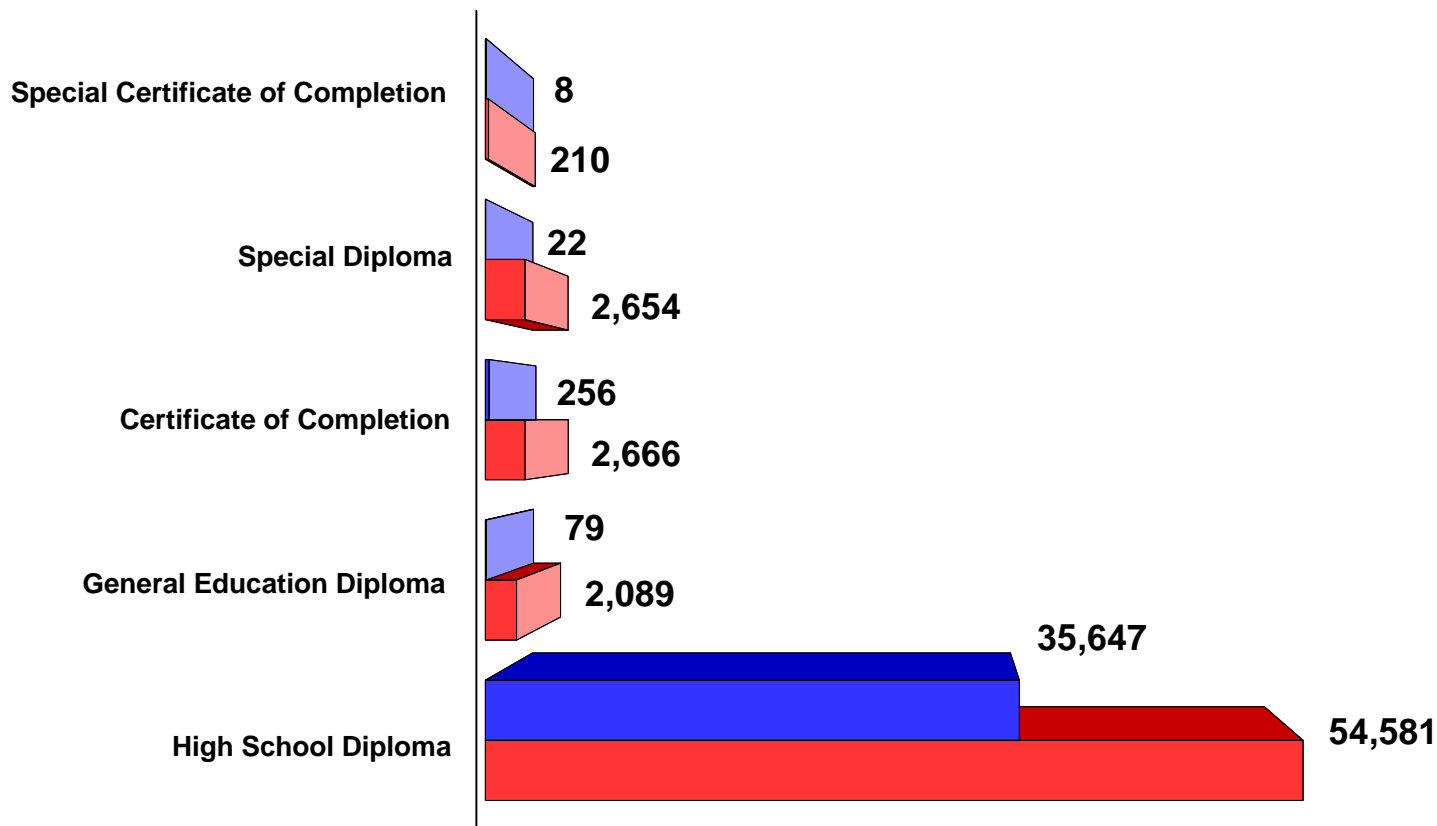


Count of 1996-97 HS Completers Taking Algebra II by Grade Level

Source: Florida Education Data Warehouse



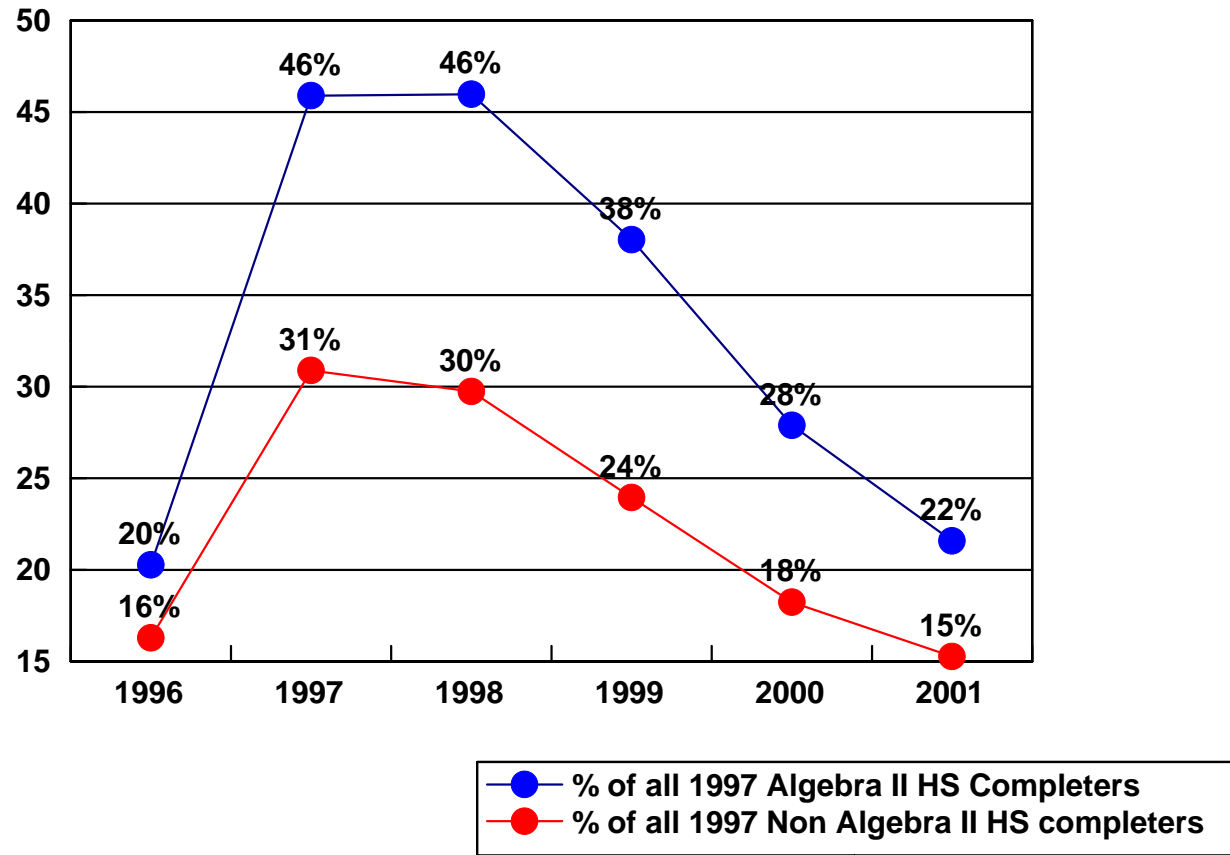
Legend
■ Algebra II Taker
■ Non Algebra II Taker



Comparison of Secondary Awards Received by 1996-97 High School Completers for Algebra II Takers and Non Algebra II Takers

Source: Florida Education Data Warehouse

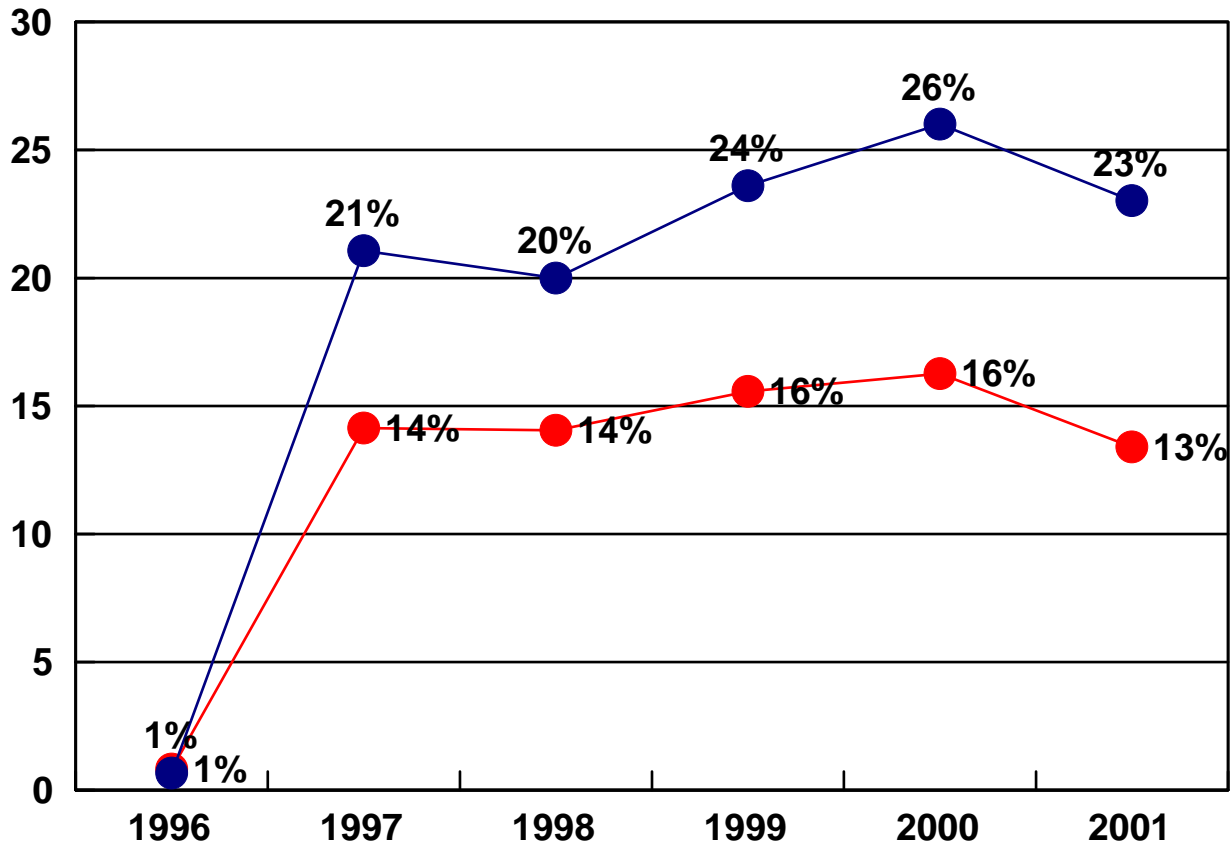
1996-97 High School Completers Enrolled in Community College



Source: Florida Education Data Warehouse



1996-1997 High School Completers Enrolled in State University System

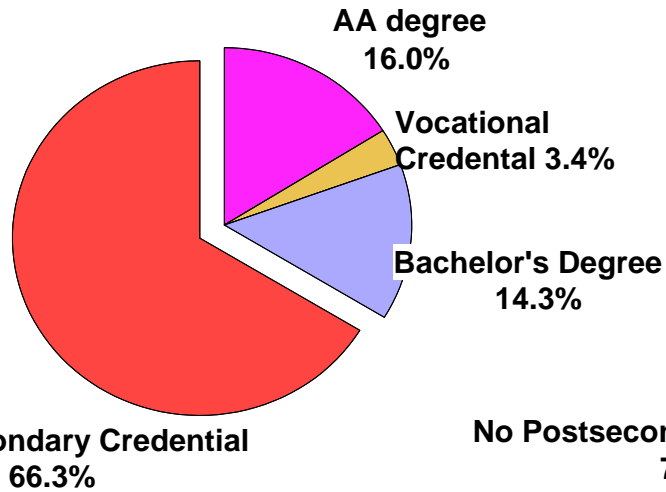


Legend
 ● % of all Algebra II HS completers
 ● % of all Non Algebra II HS completers

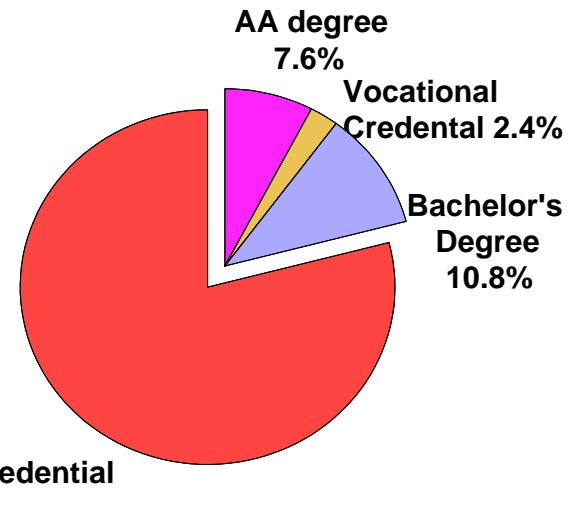
Highest Educational Attainment Level of 1996-1997 Public High School Completers as of June 2002



Algebra II



Non Algebra II



Source: Florida Education Data Warehouse



Data Warehouse Application:
A Case Study of FCAT and Course
Grade Relationships Among
9th and 10th Grade Students

Correlations Between Grades and FCAT Scores Involve Many Factors

- ◆ Course level or difficulty
 - Courses range from Math Skills to AP Calculus
- ◆ When a student takes a given course
 - 9th graders in Algebra 1 are not the same as 12th graders in Algebra 1
- ◆ Grading practices vary
 - Teacher
 - School
 - Course
- ◆ District promotion policies vary

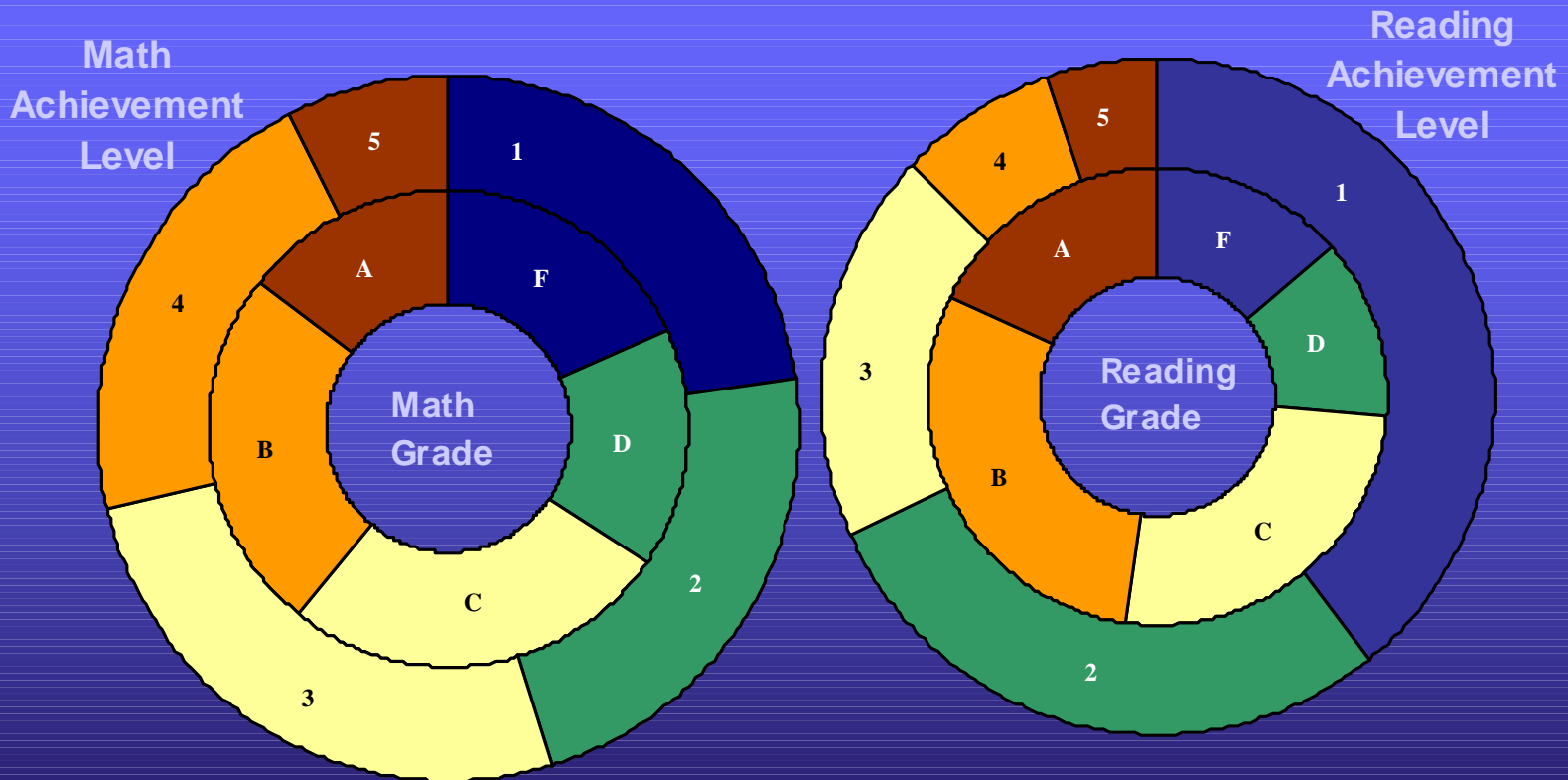


Students Tend To Receive their Lowest Grades in English, Math, and Science



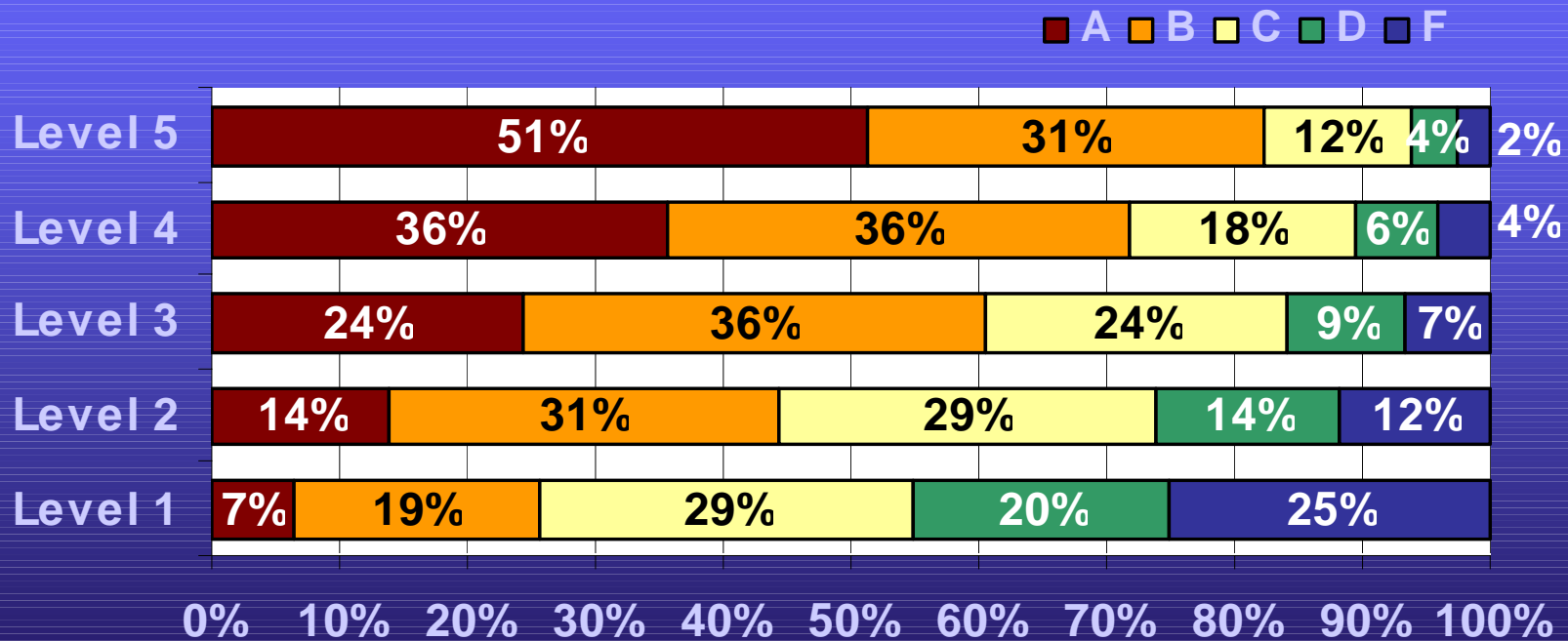
	Math	English	Science	Social Science	Foreign Language	Electives
A	14%	18%	18%	22%	31%	32%
B	25%	30%	29%	29%	31%	28%
C	26%	26%	27%	24%	21%	20%
D	16%	13%	13%	12%	9%	9%
F	18%	14%	13%	12%	8%	11%

Student Grades Tend to be Higher than Achievement Levels, Especially in Reading



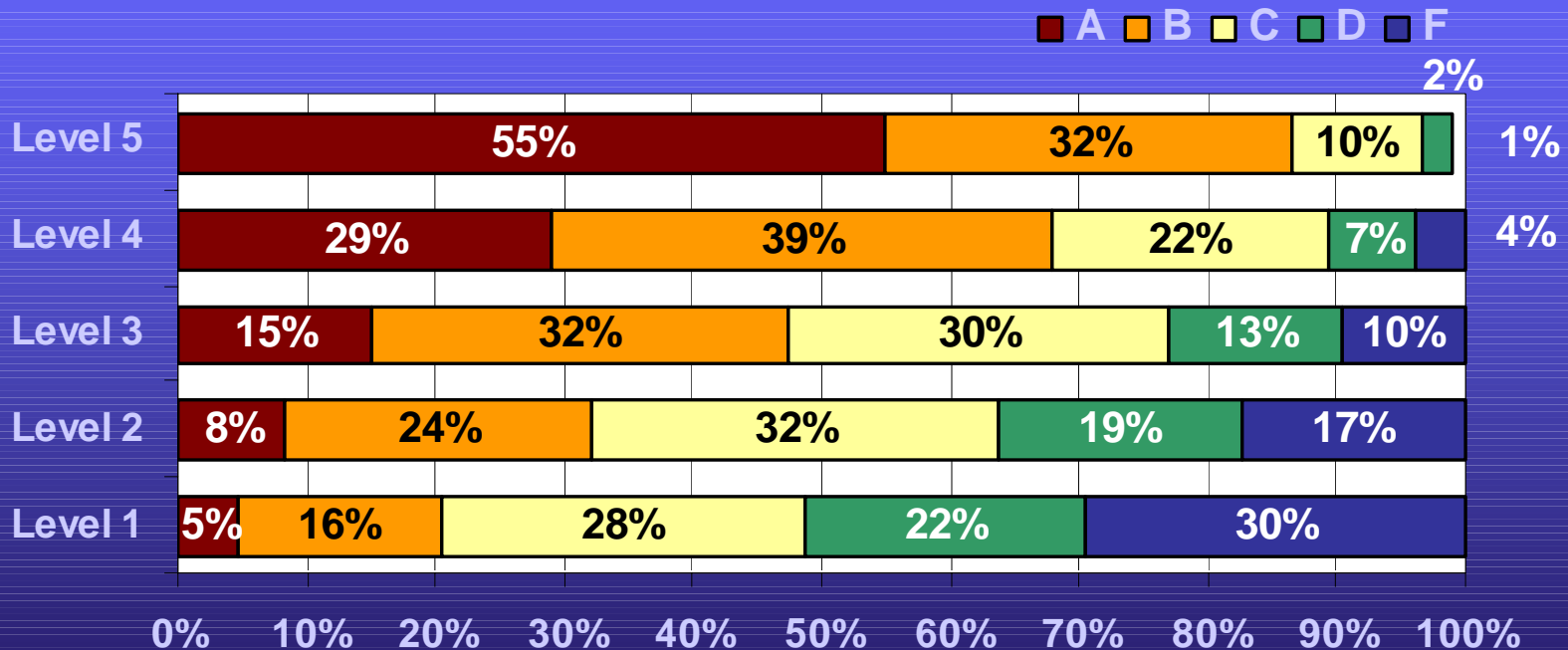
Note: 9th and 10th grade students only

English Grades Vary By Level of Student Achievement



Note: 9th and 10th grade students only

Math Grades Vary By Level of Student Achievement



Level 1 and 3 Students Receive Their Grades from Different Courses




	The percentage of all A, B, or C grades by the course in which the grade was received					
	Level 1			Level 3		
	A	B	C	A	B	C
Math 9-12	5%	3%	2%	0%	0%	0%
Explorations in Math 1	5%	4%	2%	1%	0%	0%
Applied Math 1	7%	8%	7%	2%	2%	2%
Pre-Algebra	12%	13%	9%	4%	3%	2%
Algebra 1A	33%	30%	30%	23%	21%	19%
Algebra 1B	7%	7%	7%	11%	9%	10%
Algebra 1	18%	25%	32%	39%	39%	41%
Geometry	1%	2%	2%	5%	6%	6%
Geometry Honors	0%	0%	0%	3%	5%	5%

Future Study

- ◆ The Data Warehouse makes it possible to address many different questions about Florida's students
 - How do student outcomes vary based on what happens in K-12?
 - How do grading practices vary among different districts and even schools?
 - How do outcomes vary among students with similar characteristics
 - How has student performance and progress changed over the past few years?
- ◆ The Data Warehouse provides many opportunities to support research that will inform policy decisions.

Students Receive Their Grades from Different Courses



	Level 1			Level 3			Level 5		
	A	B	C	A	B	C	A	B	C
Math 9-12	5%	3%	2%	0%	0%	0%	0%	0%	0%
Explorations in Math 1	5%	4%	2%	1%	0%	0%	0%	0%	0%
Applied Math 1	7%	8%	7%	2%	2%	2%	0%	0%	0%
Pre-Algebra	12%	13%	9%	4%	3%	2%	0%	0%	0%
Algebra 1A	33%	30%	30%	23%	21%	19%	1%	1%	3%
Algebra 1B	7%	7%	7%	11%	9%	10%	1%	1%	2%
Algebra 1	18%	25%	32%	39%	39%	41%	5%	6%	9%
Algebra 1 Honors	0%	0%	1%	8%	10%	9%	8%	8%	8%
Geometry	1%	2%	2%	5%	6%	6%	9%	9%	10%
Geometry Honors	0%	0%	0%	3%	5%	5%	51%	51%	42%
Algebra 2	0%	0%	0%	1%	0%	1%	1%	2%	3%
Algebra 2 Honors	0%	0%	0%	1%	1%	1%	21%	19%	21%