



Virginia's Educational Information Management System - EIMS

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History

2003	2004	2005	2006	2007	2008	2009	2010
<ul style="list-style-type: none"> First individual student record collection 	<ul style="list-style-type: none"> All students receive unique identifiers 	<ul style="list-style-type: none"> 40 Divisions using SIF 	<ul style="list-style-type: none"> 95 Divisions using SIF 	<ul style="list-style-type: none"> Longitudinal Data Systems grant 	<ul style="list-style-type: none"> 120 Divisions using SIF 	<ul style="list-style-type: none"> First Virginia On-time Graduation Rate published Electronic Transcript 	<ul style="list-style-type: none"> Student Record Exchange Student Schedule Collection
<ul style="list-style-type: none"> Development of a data warehouse for school divisions that now contains 10 years of state assessment results 							



Empowering Teachers and Administrators

- 10 years of student-level state assessment data
- Test data available each Sunday morning as of scoring the previous Thursday
- Student-level college-readiness scores
 - SAT
 - ACT
 - AP
- Student-level postsecondary enrollment data
- Watch list
 - Reading and mathematics, attendance, age
- Preschool and Kindergarten literacy screening results

“Hits”

- 2,966 “hits” by 828 different people in a recent 30-day period



Empowering Teachers and Administrators

- Web-based and hands-on training provided
- Training includes
 - Operation of the system
 - Using the data in the system to make informed decisions
- Additions and changes to reports often occur as a result of recommendations in training
- School divisions involved in development of new data collections

Buy-in

- School division personnel designed the first student record collection.



The Cohort Reports

- Five years, one number!
- A true longitudinal graduation rate
- Based on National Governors Association formula
- Adopted by the Board of Education in 2006
- Added longitudinal dropout and completion
- Includes all Board of Education-approved diplomas
- Rates are disaggregated by multiple subgroups

Statistic

- Virginia followed 98,043 students for four years to form the 2009 Cohort Report.



Federal Grant

- 2007 Longitudinal Data Systems grant from USED
- \$6 million to expand EIMS capabilities, including
 - Adding postsecondary enrollment, college readiness, and watch list reports
 - Developing electronic transcripts
 - Developing electronic student record exchange
 - Developing a student schedule collection
 - Developing a data quality program
- Enables a number of research activities and best practice studies

Statistic

- There are currently 14,245 student transcripts in the system.



Enabling Research

- LEP Study
- Study of dropouts and graduates
- Study of postsecondary enrollment and persistence
- Study of postsecondary outcomes in the first year*
- Indicators of risk for dropping out
- PALS outcomes and participation in the Virginia Preschool Initiative
- Third grade outcomes associated with participation in public pre-K
- Progress of students after completing VPI programs*
- Establishing an early warning tool
- Establishing Student Growth Percentiles*
- Evaluation of 21st Century Learning Centers
- Evaluation of Supplemental Educational Services and providers
- Evaluation of the Response to Intervention Initiative
- Evaluation of the Reading First initiative
- Creating data for supplemental funding for at-risk students
- Understanding the representation of students from different groups in Gifted Education
- CTE follow-up study
- Validation of the Quality Rating and Improvement System

* In Process

Fact

- None of these studies could have been attempted without longitudinal data.



The SIF Program (Schools Interoperability Framework)

- Improves data quality and reduces local burden
- Data entered once and used many times
- Software, installation, training is free
- 120 divisions participating
- Used to obtain student identifiers without human intervention
- The technology behind electronic transcripts and student record exchange
- Includes licensing to integrate local applications

Statistic

- 16 school divisions are using electronic transcripts.



Best Practices Studies

- Topical studies conducted by the Center for Innovative Technology
 - Academic and Career Plans
 - Linking Student and Teacher Data
 - Linking K-12 and Work force Data
 - Data Exchanges in Other Industries
- Seeking to obtain school division input
- Data gathered in regional workshops with school divisions, research, and interviews
- Will guide future work on the LDS



Questions?

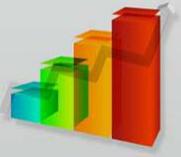
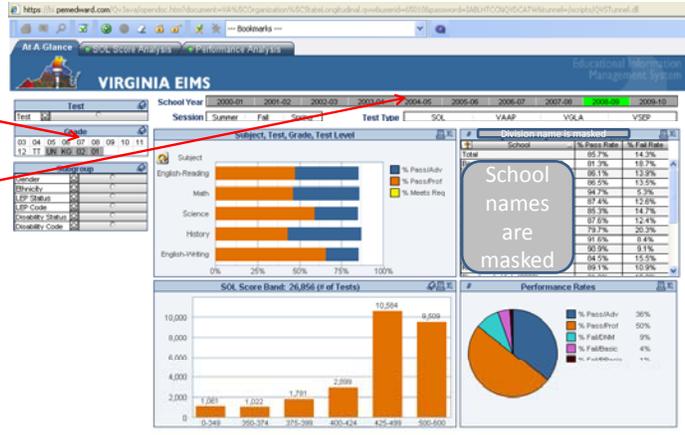
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Screen shots of several EIMS reports follow.

Dashboard

Drill to specific tests, grades, and subgroups

Choose one or more school years



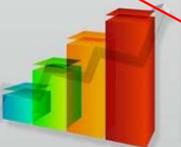
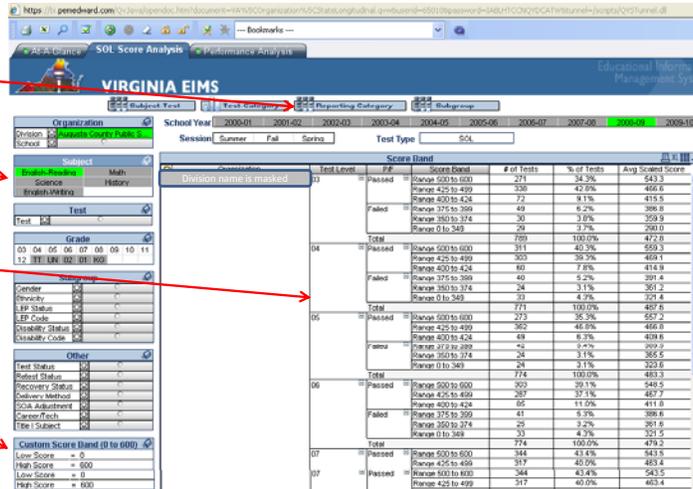
Score Analysis

Drill to the reporting category level

Choose a subject

Analyze data by score band

Define a custom score band



Score Analysis: Drilling down

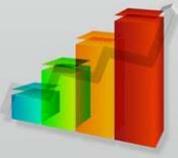
- Choose a school
- Choose a subject
- Choose a specific test
- Choose a grade
- Choose a group
- Choose a testing status



Organization	Test Level	Score Band	# of Tests	% of Tests	Avg Score
Division (name is masked)	Passed	Range 500 to 600	271	34.4%	543.3
	Failed	Range 425 to 499	338	47.9%	466.9
		Range 400 to 424	72	9.1%	415.5
		Range 375 to 399	49	6.2%	386.9
		Range 350 to 374	30	3.8%	359.0
		Range 0 to 349	20	2.6%	300.4
	Total		788	100.0%	473.4

Performance Analysis

- Disaggregate pass rates by grade, test level and administration
- Further disaggregate by race/ethnicity, gender, LEP status, disability status



Organization	Test	Grade	Ethnicity	# of Tests	# Passed	# Failed	% Pass Rate	% Fail Rate
Unspecified	English Reading (2002)	11	Unspecified	8	5	3	62.5%	37.5%
			Asian	5	5	0	100.0%	0.0%
Unspecified	English Reading (2002)	11	Black/Not of Hisp.	24	21	3	87.5%	12.5%
			Hispanic	28	20	8	71.4%	28.6%
Unspecified	English Reading (2002)	12	Black/Not of Hisp.	763	688	86	90.7%	9.3%
			Hispanic	5	2	3	40.0%	60.0%
Unspecified	English Reading (2002)	12	Unspecified	2	2	0	100.0%	0.0%
			Black/Not of Hisp.	2	2	0	100.0%	0.0%
Gr 3 - 5 Reading	03	03	Unspecified	1	1	0	100.0%	0.0%
			Black/Not of Hisp.	1	1	0	100.0%	0.0%
Gr 3 Reading	03	03	Unspecified	1	1	0	100.0%	0.0%
			Black/Not of Hisp.	3	3	0	100.0%	0.0%
Gr 3 Reading	03	03	Black/Not of Hisp.	3	3	0	100.0%	0.0%
			Asian	3	3	0	100.0%	0.0%
Gr 3 Reading	03	03	Black/Not of Hisp.	38	28	7	77.4%	22.6%
			Hispanic	92	48	36	52.1%	47.9%
Gr 3 Reading	03	03	Black/Not of Hisp.	744	650	94	87.4%	12.6%
			Unspecified	4	3	1	75.0%	25.0%
Gr 4 Reading	04	04	Black/Not of Hisp.	1	0	1	0.0%	100.0%
			American Indian o.	2	2	0	100.0%	0.0%
Gr 4 Reading	04	04	Asian	5	5	0	100.0%	0.0%
			Black/Not of Hisp.	18	14	4	77.8%	22.2%
Gr 4 Reading	04	04	Hispanic	27	20	7	74.1%	25.9%
			Black/Not of Hisp.	742	654	88	88.1%	11.9%
Gr 5 Reading	05	05	Unspecified	2	1	1	50.0%	50.0%
			American Indian o.	1	1	0	100.0%	0.0%
Gr 5 Reading	05	05	Asian	6	6	0	100.0%	0.0%
			American Indian o.	1	1	0	100.0%	0.0%
Gr 5 Reading	05	05	Black/Not of Hisp.	5	5	0	100.0%	0.0%
			Asian	5	5	0	100.0%	0.0%

Postsecondary Enrollment

Select a graduating class

Select a division and school

Select a group

School	# of HS Graduates	# of Students Enrolled in First Year	% of Students Enrolled in First Year	# of Students Awarded Degrees	% of Students Awarded Degrees
	192	126	65.6%	9	4.7%
	179	89	49.7%	6	3.3%
	149	83	55.7%	1	0.7%
	111	49	44.1%	6	5.4%
	96	63	65.7%	6	6.1%
	713	409	57.4%	30	4.2%

* National Student Clearinghouse is the source of postsecondary enrollment data. Postsecondary institutions and students can choose to block their data from this report.

Students who attended the following postsecondary institutions are not included in the data: postsecondary institutions are not included in the data.

Watch List

Select a division and school

Select a grade

Select a group

Select other characteristics

Identify potentially at risk students

Division	School	Grade	# with Absence >= 5%	# Failed English Reading SOL 2 Yrs	# Failed Math SOL 2 Yrs	# with 2 or More Yrs Overage	# with 1 or More Flags
		05	4	19	36	4	53
		08		1	2	1	3
		09	1		3		4
		05		1			1
		05	6	21	42	9	67

Virginia's Educational Information Management System (EIMS)

Virginia's solution to meeting the data collection and reporting requirements of the *No Child Left Behind Act of 2001*, the Educational Information Management System (EIMS) leverages the data requirements to provide rich decision support tools to Virginia school division personnel. Accomplishments to-date include institutionalizing the assignment of a unique identifier to each student, integrating multiple reporting requirements into a single state student record collection, and a data warehouse accessible to division personnel that contains ten years of state assessment data with the ability to disaggregate overall and sub-strand results to the teacher and student levels. In addition to state assessment data, the EIMS data warehouse now contains student-level college readiness scores, graduation data, literacy screening data, postsecondary enrollment information, and a report that can be used to identify students at risk of dropping out. These accomplishments are due in a large part to support and "buy in" by school division personnel. A large number of the reports and features of EIMS were developed at the request of school divisions and the student record collection was designed in collaboration with a group of school divisions.

Accomplishments

- 2002-2003 – First Individual Student Record Collection
- 2003-2004 – Contract Award, Pilot School Divisions Established
- 2004-2005 – All Students Assigned Unique "State Testing Identifiers"
- 2005-2006 – 40 School Divisions Participating in SIF Initiative
- 2006-2007 – 55 Additional Divisions Participating in SIF Initiative
- 2007 – Longitudinal Data Systems Grant Allows System Expansion
- 2007-2008 – 120 Divisions Participating in SIF Initiative
- 2008 – Reporting Virginia's first On-time Graduation Rate
- 2008-2009 – Development of Electronic Transcript, Additional Data Available
- 2009-2010 - Development of Student Record Exchange and the Student Schedule Collection

There are currently more than 23 million student assessments in the EIMS data warehouse, representing 10 years of state assessment data.

Empowering Teachers and Administrators

The actionable reports within the EIMS data warehouse are available free of charge to all authorized public educators in Virginia. In addition to state assessment data, the EIMS contains student-level Advanced Placement results, Scholastic Aptitude Test results, and ACT results. A Postsecondary Enrollment report allows educators to learn actual postsecondary enrollment and completion information for recent graduates. A Watch List report allows educators to use data to determine students at risk of not succeeding in school, including such factors as performance in reading and mathematics, attendance, and age for grade. Pre-school and Kindergarten literacy screening data are also available in the data warehouse. State assessment results are available on Sunday morning as of

scoring the previous Thursday. The EIMS reports received 2,966 “hits” by 828 different teachers and administrators in a recent 30-day period.

The Cohort Reports

In October 2008, the Department released the Virginia On-Time Graduation Rate. The Virginia On-Time Graduation Rate is a cohort graduation rate that expresses the percentage of students who earn a Board of Education-approved diploma within four years of entering ninth grade for the first time. It is calculated using a formula endorsed in a 2005 compact signed by the nation’s governors and subsequently adopted by the General Assembly and Board of Education. In addition to calculating the true graduation rate, the Department calculated longitudinal completion and dropout rates for schools, school divisions, and the Commonwealth. The process was repeated in 2009 and published as [Virginia’s Cohort Reports](#).

Federal Grant

A 6-million dollar federal grant is being used to expand the capabilities of EIMS, providing for electronic transfer of student records from school-to-school and from K-12 to higher education; adding additional data for educator decision support; and emphasizing training for data quality. Electronic transfer of student records from K-12 to higher education is a first step toward establishing a P-20 data system for Virginia, providing rich data for analysis. There are currently 14,245 student transcripts in the system.

Enabling Research

The longitudinal data in Virginia’s EIMS has enabled the Department to conduct a number of research studies that could not have been accomplished without longitudinal data.

- LEP study (SB 683)
- Study of high school dropouts and graduates (SJ 329)
- Study of postsecondary enrollment and persistence
- Study of postsecondary outcomes in the first year (in process)
- Indicators of risk for dropping out of school
- PALS outcomes and the association with participation in VPI
- Third grade outcomes associated with children's participation in public pre-K programs
- Progress of students after completing VPI programs in Virginia (in process)
- Establishing Virginia's early warning tool for high schools
- Evaluation of 21st Century Community Learning Centers (annual)
- Evaluation of Supplemental Education Services and Providers (annual)
- Evaluation of Virginia's RTI initiative
- Evaluation of Virginia's Reading First initiative
- Creating the data supplement to Virginia's annual report for supplemental funding sources for at-risk students in Virginia

- Understanding the representation of students from different race/ethnicity groups in gifted education
- Postsecondary outcomes for CTE completers-6 year follow-up study
- Evaluation of early care and education programs funded through social services (in process)
- Validation of Virginia's Quality Rating and Improvement System (in process)
- Assessment of Henrico County Special Education programs
- Factors associated with teacher retention in Virginia
- Establishing Student Growth Percentiles (in process)

The SIF Program

Recognizing the power of the Schools Interoperability Framework Association's (SIFA) specification to improve data quality and reduce local administrative burden, Virginia has provided software, installation, and training to 120 of Virginia's school divisions. SIF enables school divisions to obtain student identifiers for new and transferring students without human intervention. The success of this effort has prompted 64 school divisions to expand their use of the SIF specification for local "horizontal" use, resulting in improved quality of local data and additional reduced administrative burden. The SIF specification is the means by which school divisions are implementing electronic transfer of student records. To date sixteen divisions are up and running with electronic transcripts.

Best Practices Studies

Recognizing that a number of data collection topics were on the horizon, the Department contracted with the Center for Innovative Technology (CIT) to conduct a local and national information-gathering effort on a number of relevant topics. Conducting interviews in person and by telephone; and holding workshops around the state, CIT produced a number of best practices reports for the Department that reflected school division interests and concerns. The best practices reports address the following topics:

- The Academic and Career Plan;
- Linking student and teacher data;
- Linking K-12 and work force data; and
- Data exchanges in other industries.

These reports will be used to guide further development of the longitudinal data system.