



VIRGINIA DEPARTMENT OF
EDUCATION



Tracking Workforce Outcomes

Virginia Longitudinal Data System

Virginia Workforce Data Quality Initiative

National Meeting for Adult Education State Directors
April 2012

Tracking Workforce Outcomes

- Matthew Bryant, SLDS Program manager
Virginia Department of Education
Office of Educational Information Management
- Randall Stamper, Director
Virginia Department of Education
Office of Adult Education and Literacy

Background: Statutory Requirements

- Section 2.2-435.7 of the *Code of Virginia*
- Establishes a Chief Workforce Development Officer to coordinate workforce development across eleven agencies within several secretariats.
- One of the Officer's roles is to annually review and evaluate Virginia's workforce development programs.

The evaluations shall include, to the extent feasible, (i) a comparison of the per-person costs for each program or activity, (ii) a comparative rating of each program or activity based on its success in meeting program objectives, and (iii) an explanation of the extent to which each agency's appropriation requests incorporate the data reflected in the cost comparison described in clause (i) and the comparative rating described in clause (ii). These evaluations, including the comparative rankings, shall be considered in allocating resources for workforce development and training programs.

Background: Obstacles

- *Government Data Collection and Dissemination Practices Act (§2.2-3800 et seq)*
 - State agencies prohibited from collecting personal data unless specifically required to do so by state or federal law.
 - Prohibited using data collected for one purpose from being used for another purpose.
- General Assembly amended the *Code of Virginia* to allow agencies to share data.
- One of the data sharing requirements established by the amendment is that data shared across systems must be stripped of PII.

Background: Key Context

- *America Competes Act* Data Requirements
 - Requires information on transition from high school to post-secondary
 - Virginia K12 uses “STI” or “State Testing Identifier”; Virginia post-secondary uses SSN
- *FERPA* Requirements
 - PII cannot be disclosed without prior consent unless meet certain exceptions
 - Exception: Can be shared with State Education Agency without prior consent to “audit or evaluate” an “Education Program”
- New *FERPA* Regulations
 - “Education Program” specifically includes programs for, among other things, “job training, career and technical education, and adult education”
 - “Written Agreements” required for data sharing under “audit” exception
 - Data sharing under audit exception requires “Reasonable Methods”
 - More Info: <http://www2.ed.gov/policy/gen/guid/fpco/index.html>

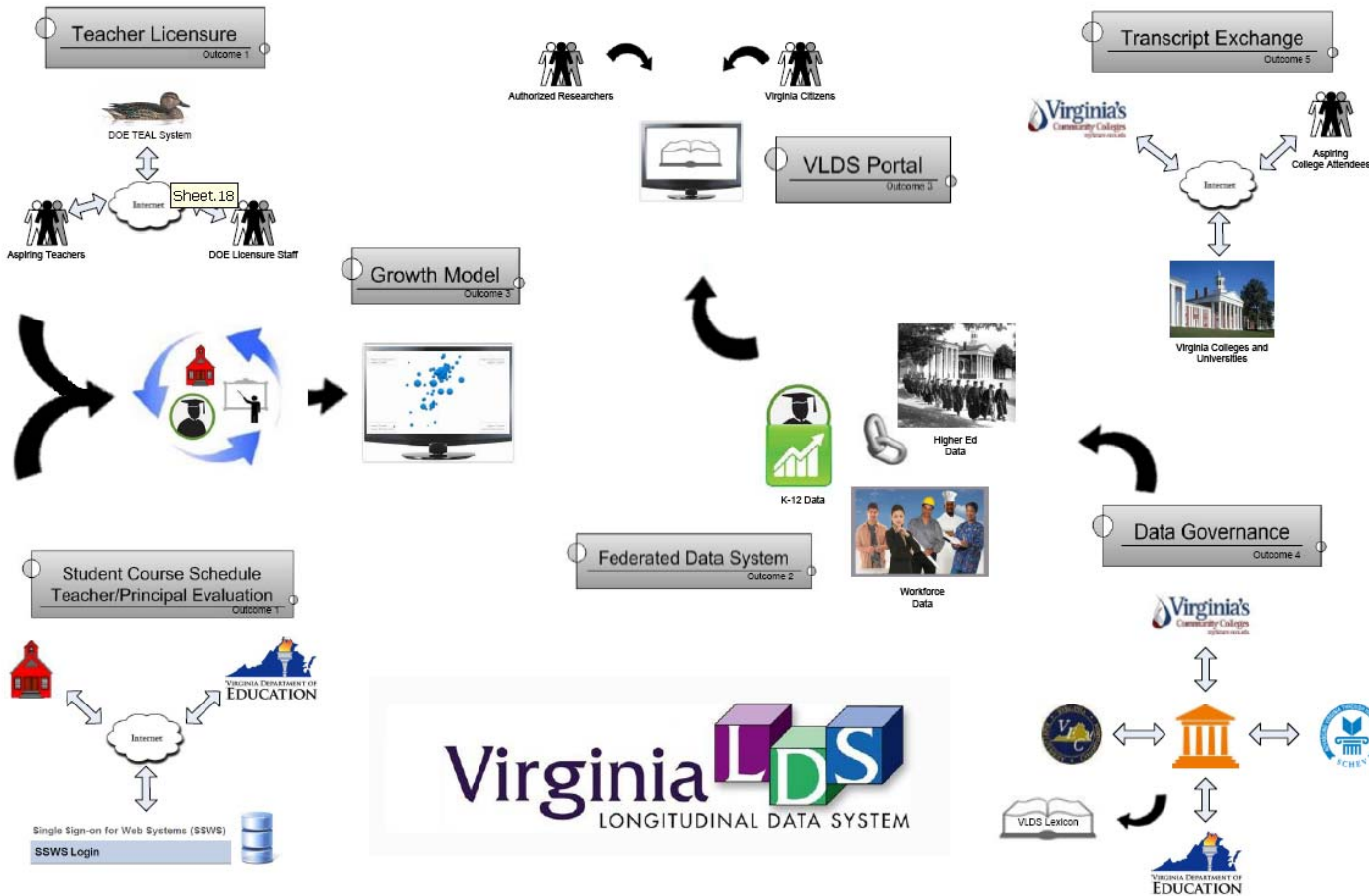
Solution: “VLDS”

- *2009 ARRA SLDS Grant Program*
 - Awarded in 2010
 - Enhanced and expanded existing SLDS in Virginia
- **Broad Scope**
 - Student Teacher Linking
 - Teacher Licensure
 - “Student Growth” Initiatives
 - E-Transcript Initiatives
 - Public Reporting – New K12 reports, New College Feedback reports
 - “Apps For Virginia”
 - and . . .

Virginia Longitudinal Data System



VLDS Overview

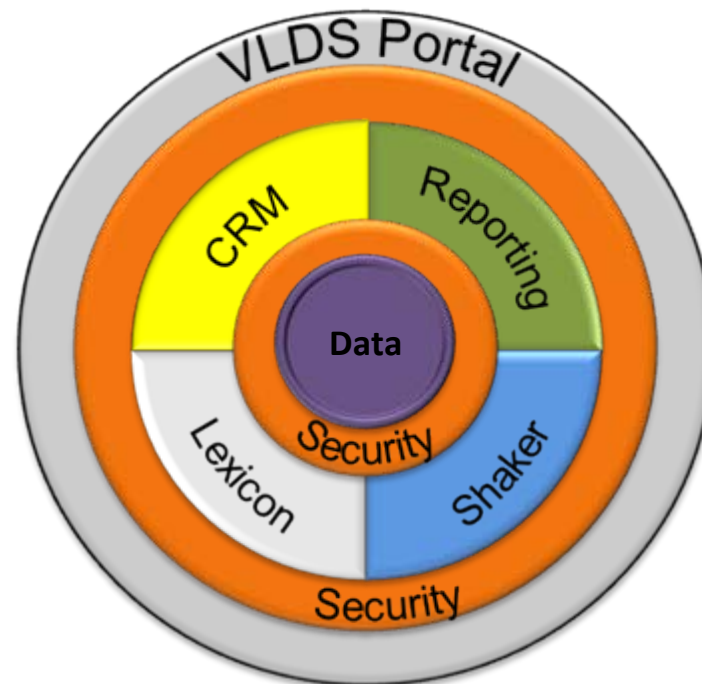


VLDS Participants

- Department of Education (DOE)
 - Grant awardee, Data Provider
- State Council on Higher Education in Virginia (SCHEV)
 - Data provider
- Virginia Employment Commission (VEC)
 - Data provider
- Virginia Community College System (VCCS)
 - Follow-on Data provider
- Virginia Information Technologies Agency (VITA)
 - Technology developer
- Virginia Polytechnic Institute (VT)
 - Technology partner
 - Developing the Shaker, Lexicon and Data Adapters
- Center for Innovative Technology
 - Technology partner

VLDS Components

- A **federated** data model and technical architecture comprised of a web based user interface (UI), a query/linking engine, a multi-level security module, a rich business intelligence (BI) capability, a Lexicon and integrated workflow.

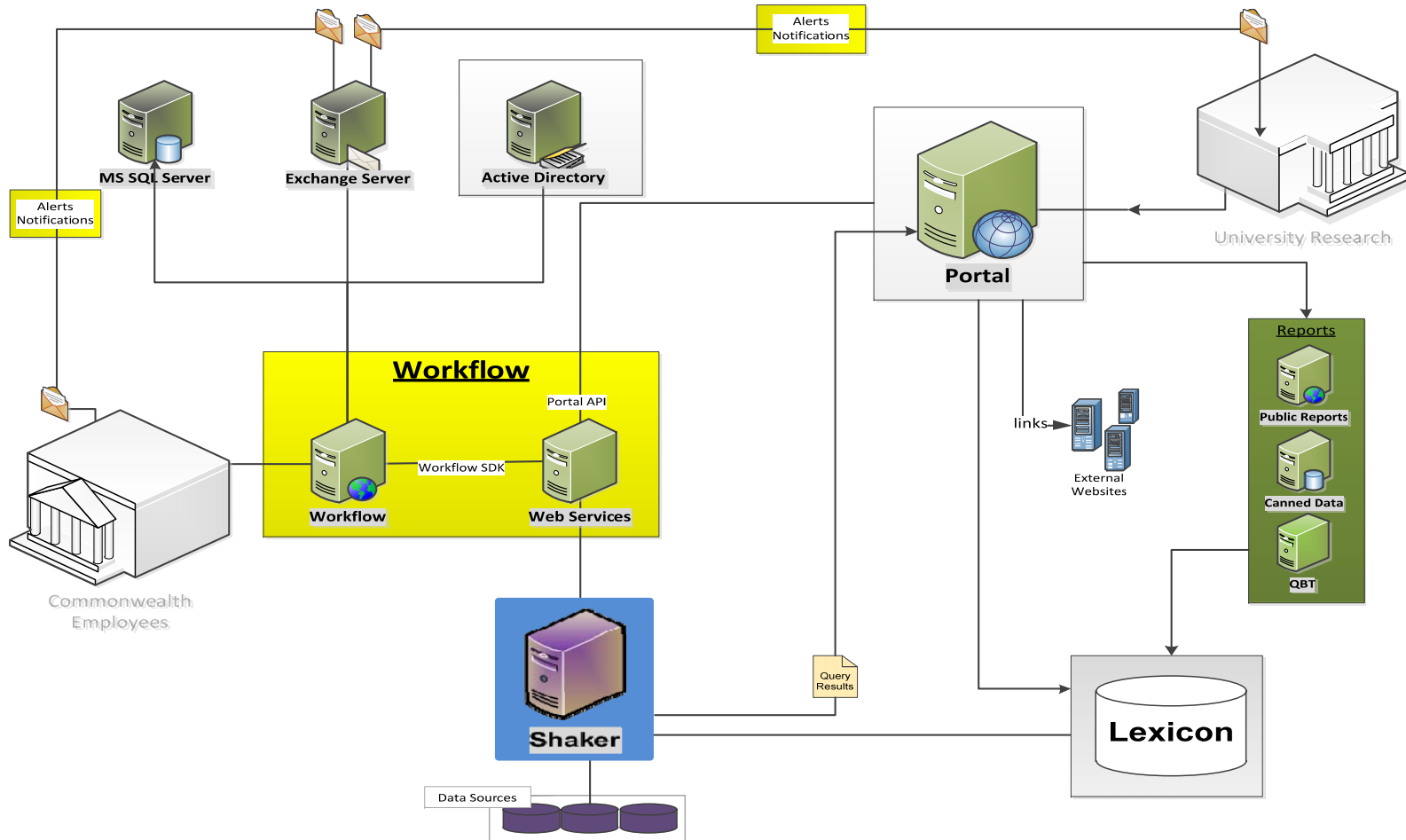


VLDS Processes

--Not a Data Warehouse

- Agency makes data available for access (“reporting server”)
- Researcher creates basic account, on request
- Researcher and agencies use workflow to create data use agreement
- Researcher submits request
- System merges data, using web service call to reporting server
- System notifies researcher of completion
- Research picks up file, conducts research
- Researcher notifies agencies, publishes research, destroys data

VLDS Architecture



The SSN “Problem”

- Probabilistic matching routines applied on assumption that same unique identifiers not present across data sets
 - Name and demographic data
- Where available, VLDS uses common unique identifier (STI (“State Testing Identifier”); SSN)
- Thus, merge across data sets does not rely on underlying unique identifier
- After match, “hash” algorithm applied and one-time “seed” is used to create one-time identifier, which is then used to match across data sets
- One-time identifier is stripped
- Remaining PII problem is small sets, which relies on researcher compliance with FERPA, as well as agency review of results

WDQI Plug In

- “Core Partners” involved in design and development
 - Governance of System – Design, Structure, Operation
 - Governance of Data – Data Sharing, Data Usage
- VCCS (Virginia Community College System) WDQI initiative specifically tied to VLDS initiative
- VCCS part of “Core Partnership” informing system and process design
- Key component of design: Ability to add new partners
 - Participation organized around purpose – in other words, how does this address the VLDS “Burning Questions”?
 - Policy challenges – privacy, sharing agreements, other compliance issues
 - Technical challenges – ability to “expose” data to VLDS
 - Data preparation – formatting and prepping data for “exposure”

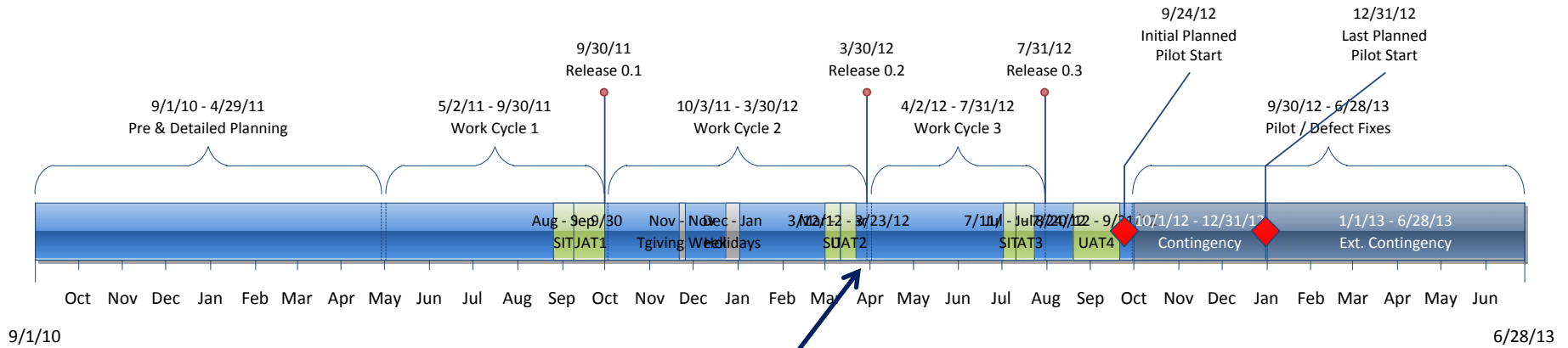
WDQI Participants

- Virginia Community College System
- Virginia Employment Commission
- Virginia Department of Education
- Virginia Information Technology Association
- State Council of Higher Education in Virginia
- Virginia Department of Labor and Industry
- Virginia Department of Social Services
- Virginia Department of Rehabilitative Services



VLDS Timeline

VLDS Project Timeline Summary – WORK CYCLE 2



Adult Education Participation

- NRS data entered into VDOE single sign-on system
- Early conversations with WDQI group; have a seat on the governance committee
- Planning with both groups in past several months

VCCS/OAEL Pilot Matching

- VCCS Middle College program
- AEFLA students
- EFL gains
- Larger data sets:
 - WIA, Title 1 services
 - Employment records
 - Postsecondary enrollment
 - TANF recipients

Recommendations for Adult Education State Directors

- Learn some of the language.
- Get into the conversation.
- Offer to be a guinea pig
- Your NRS data is very valuable.
- Conduct an interagency data mapping exercise.

Next Steps

- Explore relying on VEC agreements with other states.
- Expand these agreements to additional states.

Questions

- Randall Stamper
Randall.stamper@doe.virginia.gov
804-225-2293
- Matthew Bryant
Matthew.bryant@doe.virginia.gov
804-786-1212