Developing Longitudinal Data Systems

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Policy Questions on your Mind...

- How many students drop out after 8th grade?
- Which schools or classrooms produce the greatest academic growth for students?
- Which teacher preparation and training programs have the greatest impact on student achievement?
- What percentage of each high school’s graduates take remedial courses in college?
- Do patterns of improvement in student outcomes correspond to changes in overall spending levels or specific spending allocations?
The Power of Longitudinal Data

• **Longitudinal Data** — *data gathered on the same student from year to year* — makes it possible to:
  - Follow individual student academic growth
  - Determine the value-added of specific programs
  - Identify consistently high-performing schools/classroom/systems worthy of study
Introducing the Data Quality Campaign...

Building support and political will among policymakers to:

Fully develop high-quality longitudinal data systems in every state by 2009

Increase understanding and promote the valuable uses of longitudinal and financial data to improve student achievement

Promote, develop, and use common data standards and efficient data transfer and exchange
# DQC Managing Partners

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<td>Alliance for Excellent Education</td>
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*The campaign is supported by the Bill & Melinda Gates Foundation and managed by the National Center for Educational Achievement.*
The Ten Essential Elements

1. Unique statewide student identifier
2. Student-level enrollment, demographic and program participation information
3. Ability to match individual students’ test records from year to year to measure growth
4. Information on untested students
5. Teacher identifier system with ability to match teachers to students
6. Student-level transcript information, including information on courses completed and grades earned
7. Student-level college readiness test scores
8. Student-level graduation and dropout data
9. Ability to match student records between the Pre-K-12 and post-secondary systems
10. State data audit system assessing data quality, validity, and reliability
Policy Implications of Data Systems

Does your system have the data system in place, according to the 2007 DQC survey to address these issues using student-level longitudinal data?

- Identify which schools produce the strongest academic growth for their students. (34 states)
- Know what achievement levels in middle school indicate that a student is on track to succeed in rigorous courses in high school. (7 states)
- Calculate each school's graduation rate, according to the 2005 National Governor's Association graduation compact? (36 states)
- Determine which high school performance indicators (e.g., enrollment in rigorous courses or performance on state tests) are the best predictors of students' success in college or the workplace. (6 states)
- Identify the percentage of high school graduates who go on to college take remedial courses. (19 states)
- Identify which teacher preparation programs produce the graduates whose students have the strongest academic growth. (13 states)
Connecting P-12 to Postsecondary

• The percentage of each district’s high school graduates who enrolled in public higher education institutions within 15 months after graduation

• The percentage of last year’s graduates from each high school or school district who needed remediation in college, and how this percentage varied by student poverty status and ethnicity.

• The percentage of students who met the proficiency standard on the state high school test and still needed remediation in the same subject in college.

• How students’ ability to stay in and complete college is related to their high school courses, grades and test scores.

• The percentage of students receiving Special Education services in P-12 who go on to public higher education institutions in the state.
Longitudinal Data Systems identify **who** but not **why**

- **First Step:** Which schools are successful?

- **Next Step:** What does it take to deliver what works?
  - Connect processes to results (e.g., curriculum, teacher training)
  - Connect spending to results (e.g., where/how are successful schools spending their money?)
    - **School level**
    - **Program level**
Lessons from the States

Site Visits from 7 States (FL, MA, RI, SC, UT, VA, WI)

- Longitudinal Data Systems are part of the system-wide infrastructure and are *not* just IT projects
- Must plan for sustainability issues during planning and implementation phases
- Collection, access and use of data require different resources in terms of staff skill sets, training and professional development, and hardware and software
- Cost issues – there is not a one-time cost associated with implementing longitudinal data systems
Ways Data Can Improve Management Decisions

• Find out how your school is doing academically (look at the data!); use this information to guide program decisions
• Ask for results (data) in terms of increasing student achievement
• Reward successes that have been identified by data analysis
• Inspire your schools with proven (data-based) approaches, programs, and practices.
Contact the DQC:

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