

Appendix D

New Mexico State Education Data

The New Mexico Public Education Department is the primary source of education data for the state. The department oversees the provision of education services in 750 schools organized into 89 districts. Information is collected on financial activity in each school district, on the characteristics of more than 20,000 instructional staff, and on the performance and demographics of over 300,000 students per year. Data collection and management are guided largely by the reporting requirements of state and federally funded programs, data needs of the state's accountability system and teacher accreditation system, and the state's financial reporting and accountability mechanisms.

Overview of Existing State Data

For the purposes of this study, researchers examined the following four major databases in New Mexico that provide information about instructional expenditures, staff and student characteristics, teacher certification, and student performance (see Table NM1).

1. Financial information about New Mexico school districts is collected and managed by the School Finance Unit at the New Mexico Public Education Department. The New Mexico Public Education Department collects financial information from all districts and charter schools in the state and organizes these data into multiple categories, including expenditures, revenues, estimated budgets, cash balances, and capital improvements and debt. Instructional expenditures, of specific interest to this study, are organized into a chart of accounts with a standard set of funds, functions, and objects. Data are compiled into one document, *New Mexico Public School Finance Statistics*, and downloadable from the New Mexico Public Education Department Web site (<http://www.ped.state.nm.us/div/fin/school.budget/nm.stat.03/index.html>). Definitions of

fiscal variables are recorded in the agency's document *Supplements to the Manual of Procedures* and may be requested from the School Finance Unit staff.

2. The Accountability Data System (ADS) is the statewide student and staff information system for K–12 public education in New Mexico. School districts are asked to collect and submit detailed student and staff information for inclusion in the Accountability Data System. Data are collected on all public school students enrolled one-half time or more and on all certified and noncertified staff (including short- and long-term substitutes). Districts are required to submit student and staff data for three reporting periods ending on the 40th, 80th, and 120th days of the school year. Although summaries of information collected through the Accountability Data System are posted to the New Mexico Public Education Department Web site (<http://www.ped.state.nm.us/div/ais/data/dcrfactsheets.html>), data files must be requested from agency staff. Accountability Data System variables are defined in the agency's document *Accountability Data System Information Manual*, which is also available by request from the agency's Chief Information Office.

3. The Educator Quality Support Unit at the New Mexico Public Education Department collects and manages a licensure database that contains certification information about each individual teacher in the state. These data result from application information and teacher test scores that are submitted to the unit as part of the teacher licensure process. Staff upload data from the licensure database to the Accountability Data System on a regular basis to allow for wider agency use of these data. Data must be requested from the Education Quality Support Unit. Data documentation and variable definitions, however, are not recorded on any printed or electronic source.

4. The Accountability and Assessment Unit at the New Mexico Public Education

Department manages and reports on the state's student performance results. The unit collects multiple measures of student performance, including a norm-referenced student achievement test, a high school competency exam, a state writing assessment, and a Spanish-language achievement test. Data are compiled on all of these tests for all students that take the exam(s). Student performance data may be requested from the agency's Accountability and Assessment Unit or the Chief Information Office. Data documentation and variable definitions, however, are not recorded on any printed or electronic source.

Table NM1

Summary of Existing State Databases, New Mexico

Data Category	State Database	Managing Agency/Department
Instructional expenditures	New Mexico Public School Finance Statistics	New Mexico Public Education Department, School Finance Unit
Staff characteristics	Accountability Data System	New Mexico Public Education Department, Accountability and Assessment Unit
Student characteristics	Accountability Data System	New Mexico Public Education Department, Accountability and Assessment Unit
Student performance	Student performance test results	New Mexico Public Education Department, Accountability and Assessment Unit
Teacher licensure	Licensure Database	New Mexico Public Education Department, Educator Quality Support Unit

Instructional Spending

Dollars spent for instructional purposes by school districts in New Mexico can be measured through two data sources. First, researchers can obtain financial data on each school district on spending in specific instructional areas. Second, researchers can request salary information on individual instructional staff persons from the Accountability Data System. These data sources are summarized in Table NM2 and described below.

Table NM2

Measures of Instructional Expenditures From District Financial Data, New Mexico

Fiscal Measure	Variables Available	Description	Unit of Analysis
Instruction-related expenditure functions ^a	Direct instruction	Expenditures related to direct delivery of instruction, including expenses for teachers, substitutes, and instructional assistants	District
	Instructional support	Expenditures related to support of instruction (expenses for principals, instructional coordinators, and student support staff)	District
	Administration	Expenditures related to administration of the district, including expenses for superintendent, administrative staff, and board members	District
Instruction-related expenditure objects ^a	Personnel services	Expenditures for compensation (not including benefits) paid to staff	District
	Employee benefits	Expenditures for benefits provided to staff (insurance, retirement, worker's comp, etc.)	District
	Purchases services	Expenditures for purchases (contracted services, rents and leases, maintenance and repair, etc.)	District
	Supplies and materials	Expenditures for materials such as textbooks/software and general supplies	District
	Travel and training	Expenditures for travel and training for staff, board members, parents, and/or students	District
	Capital outlay	Expenditures for fixed (\$1,000 and over) and supply (under \$1,000) assets	District
Staff salary data ^b	Salary	<ul style="list-style-type: none"> • Annual base salary rounded to the nearest dollar (does not include extra service pay) • Partial salaries for staff with multiple roles are not reported but can be estimated by using full-time equivalency (FTE) count data 	Individual classified staff
	Source of salary	Percent of base salary paid from <ul style="list-style-type: none"> • State operational funds • Federal funds • Medicaid in the schools funds • Private funds • Public funds other than state operational 	Individual classified staff

^aThese data are contained in the Chart of Accounts.

^bThese data are contained in the Accountability Data System.

Instructional Expenditures. Two function categories collected by school districts in New Mexico pertain to the expenditures dedicated for instruction: (a) direct instruction and (b) instructional support (see Table NM2). Direct instruction includes payroll spending (personnel

services and employee benefits) for teachers, substitutes, and instructional assistants. It also includes spending within the other object categories under this function, including purchased services, supplies and materials, travel and training, and capital outlay (fixed and supply assets) that pertain to classroom instruction. Instructional support includes payroll spending for staff who directly or indirectly support instruction of students (e.g., principals, instructional coordinators, student support staff). It also includes spending in the object categories mentioned above that relate to instructional support activities. An additional function category that is indirectly related to instructional spending but important for comparative purposes is administration. This category contains spending for central administration, including the costs of the superintendent and administrative support.

Individual Staff Salary Data. Salaries for instructional and administrative staff can be determined using the broad fiscal categories described in the financial data above. For individual teachers, instructional support staff, student support staff, and administrative staff, salary data are collected in the Accountability Data System. Each staff record contains a base salary amount as well as data on the source(s) of revenue that funded the base salary.

Data Usability. Researchers considered data on instructional spending from both the financial database and the Accountability Data System for their potential usefulness for policy research purposes (see Table NM3). Overall, the district-level data on instructional expenditures and the individual-level staff salary data would provide useful data sources for conducting resource allocation research. These data are available via two sources, one providing a district-level perspective of overall spending in instruction and the other providing detailed information about salaries that could be aggregated to grade or classroom salary measures. Data on district spending for instructional functions and objects are downloadable from the New Mexico Public

Education Department Web site, and detailed documentation on these data is available by request from the School Finance Unit. According to data managers, database contents and data definitions for instructional expenditures in the financial database have not changed substantively during the years considered for this study (1999–2003). The individual salary data from the Accountability Data System also have been collected in a consistent manner from 1999 to 2003. The individual salaries also can be aligned directly to staff characteristics that are also located in the Accountability Data System. This allows researchers to use staff information on full-time equivalency of different positions to estimate, for example, how much of an individual's salary is dedicated to instructional or noninstructional positions.

A significant amount of data on instructional spending are collected and reported in state education databases and could, in theory, be used in policy research. The following four challenges that researchers face in this application are apparent.

1. Access to data from the Accountability Data System is restricted and requires a special request to the New Mexico Public Education Department.

2. Although data on spending on instructional function and object categories are available at the state and district levels, similar information is not collected by the agency for school-level spending.

3. The individual-level salary data that are provided via the Accountability Data System are not consistent with the district-level fiscal salary data. The Accountability Data System provides the base salary being paid to each staff person reported at the three reporting dates (40th, 80th, 120th days) and also labels the district at which the staff person works; however, an aggregation of all salaries for one district would not align to the actual amount expended for salaries at that district as recorded in the financial database. This is because the number of days a

staff person is employed is not tracked. Additionally, definitions differ between the base salary in the Accountability Data System and personnel services object in the financial database.

4. Finally, spending for staff benefits is tracked in the fiscal database and broken down into subcategories (educational retirement, retiree health care, health/medical, life, dental, etc.). However, since benefits spending data are available only at the district level, researchers cannot determine the cost of benefits or extra duty assignments for individual staff within a district. Thus, allocation of benefits for individual employees must be calculated as a proportion of all district spending on benefits rather than as an actual cost for each employee.

Table NM3

Strengths and Challenges of Instructional Expenditure Data That Affect Their Use for Policy Research, New Mexico

Criterion	Strengths	Challenges
Availability and accessibility	<ul style="list-style-type: none"> Data are available from two sources: district expenditures and individual staff salaries. District financial data are downloadable in Microsoft Excel spreadsheets from the New Mexico Public Education Department Web site. Data documentation is updated annually and available by request from the New Mexico Public Education Department. 	<ul style="list-style-type: none"> Access to staff salary data is restricted and requires special request to the New Mexico Public Education Department. School level expenditure data are not collected.
Completeness	<ul style="list-style-type: none"> District financial data are available for all districts and all years of the study period. Staff salary data are collected for certified and non-certified staff for all schools and all years of the study period. 	<ul style="list-style-type: none"> Some data collection problems persist, especially for districts that encounter changes in leadership or accounting staff.
Accuracy	<ul style="list-style-type: none"> Data managers report that consistency of the financial data collection process has increased the accuracy of district data reports. Automatic error checking is conducted before the districts formally submit data to the New Mexico Public Education Department. 	<ul style="list-style-type: none"> Some data collection problems persist, especially for districts that encounter changes in leadership or accounting staff.
Consistency	<ul style="list-style-type: none"> No substantive changes were made in data collection procedures or variable definitions during the study period. 	<ul style="list-style-type: none"> Different reporting procedures for staff salary data and district salary expenditure objects create noncomparable data.
Alignment	<ul style="list-style-type: none"> Individual staff salary data can be aligned with other staff characteristics. Staff salary data can be averaged across grades, schools, and districts. 	<ul style="list-style-type: none"> Staff benefits are collected at the district level and not at the individual level. Individual-level expenditures for benefits can only be estimated by averaging across all staff in a district.

Staff Characteristics

Information about staff is collected at the individual level in the Accountability Data System. Data measures exist for demographic characteristics of staff, information about the classroom assignment of teachers and aides, and full-time equivalents of particular staff positions

in schools and districts. Additionally, the Education Quality Support Unit of the New Mexico Public Education Department collects teacher certification information, which is regularly uploaded to the Accountability Data System database (see Table NM4). The Accountability Data System database also contains individual-level staff characteristics collected at the 40th, 80th, and 120th days of each school year. Certification data and teacher test scores are collected and maintained separately from the Accountability Data System; however, contents of the database are regularly uploaded to this data system. One feature of the licensure database is that it is continually updated without archiving, so no year-to-year data exist. Further limiting the usability of this data for policy research is the lack of issue date and end date information for certification.

Table NM4

Staff Characteristics Available in State Databases, New Mexico

Staff Characteristic	Variables Available	Unit of Analysis	Source
Position and full-time equivalency count	Position of staff person and full-time equivalency devoted to each position the individual fills	Individual	Accountability Data System
Experience	Years of experience in the district	Individual	Accountability Data System
	Years of experience out of district	Individual	Accountability Data System
Education	Bachelor's degree institution	Individual	Accountability Data System
	Highest degree earned	Individual	Accountability Data System
	Highest degree institution	Individual	Accountability Data System
Demographics	Gender	Individual	Accountability Data System
	Race/ethnicity	Individual	Accountability Data System
	Birth date	Individual	Accountability Data System
Certification (teachers)	Subject area of license	Individual	Licensure Database
	Grade level of license	Individual	Licensure Database
	Type of license (standard, waiver, emergency, etc.)	Individual	Licensure Database
	Level of license (1–3 tiers)	Individual	Licensure Database
	Raw score on NM teacher assessment	Individual	Licensure Database

Counts and Ratios. Staff counts and ratios can be calculated from individual data in the Accountability Data System (see Table NM5). Staff full-time equivalency (FTE) counts can be created by position, school, district, or demographic characteristics. Researchers can calculate a pupil:teacher ratio using student enrollment information and an aggregate of classroom teachers listed in the Accountability Data System. State data do not contain actual class size information. However, course information, including the student identifier, teacher identifier, and course number, are collected in the Accountability Data System; researchers might potentially be able to estimate class size using this information. Other staff ratios such as teacher:administrator or pupil:administrator also can be calculated using aggregated staff full-time equivalency (FTE) counts from the Accountability Data System.

Table NM5

Student and Staff Counts and Ratios, New Mexico

Count/Ratio Measure	Data Available	Unit of Analysis	Source
Student enrollment	Can be calculated from existing data	Grade Program School District Demographic subgroups	Accountability Data System
Staff full-time equivalency counts	Can be calculated from existing data	Job position School District Demographic subgroups	Accountability Data System
Class size	Possibility of calculating actual class size from existing data	Class	Accountability Data System
Other ratios: • Pupil:teacher • Pupil:administrator • Teacher:administrator	Can be calculated from existing data	School District	Accountability Data System

Data Usability. As summarized in Table NM6, data on staff characteristics are useful in many ways for policy research purposes and also contain some limitations for these purposes. These data are collected on an individual level, creating flexibility for researchers to create aggregated data on a number of subgroup categories such as grade, school, and demographic characteristics and to create student and staff ratios for schools and districts. The structure of the database includes a way to link individual students to their teachers for each class in which they are enrolled. The Accountability Data System has been in existence for many years and has established automated data collection, validation, and error correction mechanisms. Since staff data contain job code information, teacher data can be isolated for research purposes.

The most important data usability issue concerns accessibility of individual-level staff data for use by outside researchers. State and district summaries of staff information are available on the New Mexico Public Education Department Web site; however, these data are not downloadable and postings are not consistent with respect to content and timeliness. Also, no established mechanism exists for sharing individual-level data with outside users, and data managers struggle with federal Family Educational Rights and Privacy Act (FERPA) requirements because the unique identifier for staff in the Accountability Data System database is the individual's Social Security number.

Another concern regarding data usability is the fact that teacher certification data are compiled from a different source using different procedures than the Accountability Data System. Data on the same individuals originate from two streams of data collection using different procedures, which creates greater possibility of misaligned data on teachers. Additionally, certification data are collected using a cumulative process in which updates are made to teacher information without annual archives. Because this database does not contain the

issue date or end date of teacher certificates, researchers face a significant barrier to conducting analysis on this variable.

Table NM6

Strengths and Challenges of Staff Data That Affect Their Use for Policy Research, New Mexico

Criterion	Strengths	Challenges
Availability and accessibility	<ul style="list-style-type: none"> Individual-level staff characteristics are collected with the ability to aggregate data up to grade, school, or district levels. Data documentation is updated annually and available by request from the New Mexico Public Education Department. 	<ul style="list-style-type: none"> Staff data are not publicly available and must be obtained by special request from the New Mexico Public Education Department staff.
Completeness	<ul style="list-style-type: none"> Three data collection periods ensure that most students and staff are accounted for given partial-year staff contracts and within-year staff and student turnover. Staff data are collected for certified and noncertified staff for all schools and all years of the study period. 	<ul style="list-style-type: none"> Teacher certification data lack critical information about dates for which certifications are valid.
Accuracy	<ul style="list-style-type: none"> Automatic error checking is conducted before districts formally submit data to the New Mexico Public Education Department. 	<ul style="list-style-type: none"> Accuracy of certain variables of interest are suspect (e.g., staff years of experience, student poverty).
Consistency	<ul style="list-style-type: none"> No substantive changes were made in data collection procedures or variable definitions during the study period. Data collection documentation provides clear instructions with helpful examples for the user. 	
Alignment	<ul style="list-style-type: none"> Staff characteristics can be linked to salary data. Individual students can be linked to their teachers for each class in which they are enrolled. Teacher certification data are regularly uploaded to the main staff database. 	<ul style="list-style-type: none"> Teacher data are a combination of two data collection efforts, staff characteristics and teacher certification, creating the possibility of misalignment if data are merged. The teacher certification database is updated cumulatively without year-to-year archive information for aligning with other staff data.

Student Performance

The state of New Mexico uses multiple student achievement tests for measuring performance: norm-referenced tests in English and Spanish, a 10th-grade competency exam, and a state writing assessment. Student performance is also gauged at the school level using school accountability rankings that are based primarily on test scores.

Norm- and Criterion-Referenced Tests. New Mexico has traditionally relied on norm-referenced student achievement tests to track performance of students. The CTBS/TerraNova Survey Plus was used through 2001–2002 for grades 3–9. The state reported median percentiles for math, reading, language arts, total score, science, and social studies. The state also reported scale scores for criterion-referenced questions that were identified within the norm-referenced exams in math, language arts, science, and social studies. The CTBS/Terra Nova Survey Plus was replaced in 2002 by the Terra Nova 2nd edition Complete Battery (CAT) for grades 3–9. The state reported median percentiles for math, reading, language arts, total score, science, and social studies. A true criterion-referenced exam was introduced in December 2003 for grades 4 and 8. By 2005, the state plans to replace the norm-referenced exam with a criterion-referenced exam for grades 3–9 and 11.

New Mexico Writing Assessment Score. A one-hour writing exercise is given to students in grades 4 and 6 (optional in grade 8). Tests are scored on a range from 1 to 6.

New Mexico High School Competency Exam. Students in grade 10 are tested for their competency in reading, language arts, math, science, social studies, and written composition. Results are recorded as a scale score and percentage passing for each subject category. A passing score is required for a high school diploma.

State Accountability Ranking. Each school is ranked based on test scores, number of dropouts, student attendance, safety plan, and parent involvement plan. Four accountability rankings are used by the state (exemplary, meets standards, probationary, corrective action). Districts are currently not ranked by the accountability system.

Table NM7

Student Performance Tests, New Mexico

Test	Type	Scoring	Grades	Subject Areas	Notes
Terra Nova Survey Plus	Norm-referenced test	Percentile rank Normal curve equivalent Scale	3–9	Math, reading, language arts, total score, science, social studies	Administered through 2001–2002. Spanish Terra Nova was instituted 2000–2001 and includes two different tests from which districts could choose.
Terra Nova 2 nd edition	Norm-referenced test	Percentile rank Normal curve equivalent Scale	3–9	Math, reading, language arts, total score, science, social studies	Replaced the Survey Plus in 2002–2003. Scores were ranked using Survey Plus norms.
High School Competency Exam	Exit exam	Pass–fail Scale	10	Reading, language arts, math, science, social studies	Required for diploma. Spanish exit exam began in 2000–2001.
New Mexico Writing Assessment	Written exam	Holistic score from 1 to 6	4, 6, 8 (optional)	Writing	
New Mexico Criterion- Referenced Test	Criterion- referenced test		4, 8		The criterion-referenced test was piloted in two grades in 2003–04. The state plans to replace the norm-referenced test with a criterion- referenced test (grades 3–9, 11) by 2005.

Data Usability Issues. Student performance testing in New Mexico has stayed relatively consistent over time and has been used for multiple grades (3–10) for all years considered in this study (1999–2003). These data enable researchers to track the performance of an individual

student from year to year. These features are highly advantageous for researchers interested in longitudinal analysis of resources and the performance of student cohort groups. The state's commitment to including a Spanish version of their standardized test (beginning in 2000–2001) provides an opportunity to conduct focused analysis on limited English proficient (LEP) students. The most obvious concerns relate to accessibility of these data by the research community. State summaries of student performance are published on the New Mexico Public Education Department Web site, but more detailed test data are not publicly available. When requesting student performance data from the agency, researchers faced similar challenges presented in accessing Accountability Data System student and staff data (no established mechanism for sharing individual-level data with outside users). Changes in testing in the state will affect future longitudinal analysis because norm-referenced tests will be replaced by criterion-referenced tests in 2005. Finally, state accountability rankings provide composite scores for each school in the state that reflect state performance priorities. However, rankings are clustered in the middle two categories and provide very little variability for use in statistical analysis.

Table NM8

Strengths and Challenges of Student Performance Data That Affect Their Use for Policy Research, New Mexico

Criterion	Strengths	Challenges
Availability and accessibility	<ul style="list-style-type: none"> • Student performance results in multiple score formats (NCE, percentile rank, scale) can be requested by grade level from the New Mexico Public Education Department. 	<ul style="list-style-type: none"> • Agency staff have no procedure in place to provide outside users with individual- or grade-level student performance data. • Student performance data are not downloadable from the New Mexico Public Education Department Web site.
Completeness	<ul style="list-style-type: none"> • Student performance data can be requested on all test takers and also on subgroups (high-poverty, high-minority, special education, limited English proficient). • Test scores are available for a wide span of grades (3–9 Terra Nova). 	<ul style="list-style-type: none"> • The universe of test takers has expanded with the introduction of the Spanish Terra Nova in 2000–2001.
Accuracy		<ul style="list-style-type: none"> • Demographic data attached to student performance scores are unreliable due to self-report error; researchers must request additional data cross-referenced with the Accountability Data System.
Consistency	<ul style="list-style-type: none"> • Terra Nova testing provides a consistent span of test years and grades tested. 	<ul style="list-style-type: none"> • The testing changed from Terra Nova Survey Plus to Terra Nova 2nd edition in 2002 (norming standard did not change). • New Mexico criterion-referenced test was piloted in 2003 and is due to replace the Terra Nova by 2005.
Alignment	<ul style="list-style-type: none"> • Demographic and programmatic information about test takers can be matched with test results. 	

Student, School, and District Characteristics

Student Characteristics. New Mexico school districts compile information on individual students and report these data to the state via the Accountability Data System. Similar to staff data, student data are reported on the 40th, 80th, and 120th days of the school year. Additional reporting dates for students are December 1 and the end of the school year. Student

characteristics that are contained in the Accountability Data System and of interest for this study are listed in Table NM9.

Table NM9

Data Available in State Education Databases on Student Characteristics, New Mexico

Student Characteristic	Variables Available	Source	Unit of Analysis
Socioeconomic status	Free and reduced-price lunch program participation	Accountability Data System	Individual
Race/ethnicity	Ethnicity Tribe	Accountability Data System	Individual
Grade	Grade	Accountability Data System	Individual
Gender	Gender	Accountability Data System	Individual
Program participation	Special education Bilingual/English as a second language Limited English proficient/English language learner Title IA, IC, III, VIII, VII Johnson-O'Malley Act Perkins tech-prep	Accountability Data System	Individual
Other	Home language	Accountability Data System	Individual

School and District Characteristics. Student characteristics can be aggregated to the school and district levels, creating important demographic characteristics. These measures can also be requested from the New Mexico Public Education Department in lieu of individual-level data. School and district characteristics of interest to policy researchers are listed in Table NM10 with a short description of data sources for each. School locale code is not available in any state education database, and per-pupil expenditures cannot be determined at the school level because expenditure data are collected only at the district level. A limited number of district characteristics are posted to the agency's Web site. However, these data are in portable document format (.pdf) and therefore are not readily usable for analysis purposes. District wealth can be

measured as the sum of residential, nonresidential, and oil/gas/copper values in the district, the district tax rate, or revenues available from local taxes (including residential, nonresidential, and oil/gas taxes). These district wealth measures can be downloaded from the New Mexico Public Education Department Web site for 2000 through 2003.

Table NM10

Data Sources for School and District Characteristics, New Mexico

Characteristic	Source	
	School	District
School type	Special request to the New Mexico Public Education Department	N/A
Enrollment	Special request to the New Mexico Public Education Department or aggregate from student data	
Locale	U.S. Census Bureau 2000 Census	
Attendance rate	Special request to the New Mexico Public Education Department	
Dropout rate	Special request to the New Mexico Public Education Department	
Per pupil expenditures	N/A	Calculation of expenditure and student enrollment data
Average class size	Special request to the New Mexico Public Education Department or aggregate from student and staff data	New Mexico Public Education Department Web site or aggregate from student and staff data
Number of teachers	Special request to the New Mexico Public Education Department or aggregate from staff data	New Mexico Public Education Department Web site or aggregate from staff data
Accountability rating	New Mexico Public Education Department Web site	N/A
District wealth	N/A	New Mexico Public Education Department Web site

Community Characteristics. Education databases do not contain information about characteristics of the community within which a school or district is located. Census information provides a number of relevant indicators for community well-being, including family income, parent education levels, and receipt of public assistance.

Data Usability Issues. The quality of school and district characteristics is heavily dependent on the quality of their source data—student and staff data in the Accountability Data System (ADS) database. The New Mexico Public Education Department provides district characteristics on its Web site; however, only district financial characteristics can be downloaded for use in a research study. Also, data managers at the agency explained that the measure for poverty status of students is unreliable due to inconsistent reporting procedures. These data were only collected through the Accountability Data System during the 1998–1999 school year. A second source of data on students’ free and reduced-price lunch program participation are data that are submitted with student achievement test reports. These data are also suspect due to self-report error.

Summary of Findings

Alignment. According to data managers at the state department of education, characteristics of individual students and teachers could be matched by aligning students to the unique course number that can also be aligned to individual teachers. Student characteristics could also be matched to their performance scores by matching student Social Security numbers from the Accountability Data System and test score datasets. Although data managers described this process as a way to align teachers and students at an individual level, they also expressed that confidentiality issues would likely create a barrier for researchers to actually obtain these data and test whether such alignment is possible (Social Security numbers are used as unique identifiers for both teachers and students).

With regard to aligning data on fiscal resources, staff salary information is collected on an individual level in the Accountability Data System and could be aggregated to the school and

district level. However, other fiscal data (e.g., expenditures for staff benefits, materials, equipment, travel, training) are only available at the district level.

The certification database presents a barrier for researchers because data are continuously updated without annual archiving. This process, along with lack of issue dates and expiration dates, results in the inability to create a subset of active, certified staff for a given study period.

Accessibility. At the time of this analysis, the New Mexico Public Education Department was undergoing a major restructuring. Voters approved a new governance structure in September 2003 that eliminated existing leadership at the department. This environment contributed to major changes in staffing at all levels of the department; at the time of this study, approximately 40 of the agency's positions were unfilled. Access to data was severely limited during this time as few staff persons were in positions to approve outside requests for individual-level data. This situation created a serious barrier to the data collection process for this study.

Usability. Based on documentation of existing data and conversations with data managers at the state department of education, researchers found a sufficient range of data describing resources; student performance; and student, school, and district characteristics. Student and teacher characteristics are collected by the state at the individual level, creating the potential for more complex analysis and the flexibility for aggregating these data to higher levels for research purposes.