Data Collection Coordination for the Education and Well-Being of Washington State Children: Actions and Future Options

Senate Bill 5474 Task Force on the Education and Well-Being of Children

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DATA COLLECTION COORDINATION FOR THE EDUCATION AND WELL-BEING OF WASHINGTON STATE CHILDREN: ACTIONS AND FUTURE OPTIONS

Executive Summary

Authorizing Legislation

Washington State Senate Bill 5474 created an interagency task force to examine data collection efforts related to the education and well-being of children. Task force members represented legislative staff; key state agencies involved with data collection and with children's programs; and the associations of school directors, school administrators, cities, and counties. The Washington State Institute for Public Policy provided the staff support for the task force.

The task force's primary purpose was to determine ways to provide aggregated program data on children, using school district boundaries as the mechanism for sorting the information. Data sorted by school district boundary could be used by state and local policymakers in planning and evaluating their education programs and activities.

The bill also required the task force to identify:

- the types of data needed;
- the cost and feasibility of various data collection options for aggregation and reporting actions, which could be implemented at little or no cost;
- actions which would require additional resources for implementation; and
- related issues (such as confidentiality, common definitions, and timeframes) as deemed appropriate.

Findings

Many state agencies and school districts collect information on Washington's children. However, it is almost impossible to combine data from different program sources for resource allocation, program planning, and evaluation purposes. A variety of agencies would like to be able to assemble data on children from different programs and geographic boundaries.

At the local level, school district personnel have been unable to obtain certain state social and health data that would be helpful to them, because such data is aggregated and reported by ZIP code or county--not by school district. As schools increasingly become a focal point for the delivery of various social services, they need more state-level information on the social, health, employment, and juvenile justice backgrounds of the children they serve.

Until recently, merging a variety of information from different programs was difficult and expensive. However, the advent of geographic information systems on personal computers makes it possible to merge program data from different sources and areas (e.g., census tracts and ZIP codes) and report it by different geographic areas (e.g., school districts and cities).

Recommendations

The task force adopted a policy framework to categorize data. The framework helped answer resource allocation and program evaluation questions on the education and well-being of children. Five key data categories were identified: poverty, family, health, criminal, and educational status. This report contains a detailed summary of the questions and data elements, as well as identification of who collects the elements and what methods they use.

The task force recommends the following options, provided that an appropriation is available:

• *Short-Term Option*: Provide aggregated data by ZIP code and report by school district boundary.

Each agency would send its data on total numbers of children (collected by ZIP code and aggregated by each program) to the Office of Financial Management (OFM). OFM would convert the data into estimated total numbers of children in each school district in each program (e.g., the number of children on Medicaid in each school district).

The data could be assembled and distributed in an annual report to state and local policymakers and school districts beginning September 1992. This option has the lowest estimated costs because there would be no investment in a geographic information system.

An advantage of this option is that it can be implemented quickly and will provide information on a school district level across the state. A disadvantage is that it would be limited to basic descriptive information organized by school districts, and thus would not be useful for planning in other policy areas.

• *Intermediate Option*: Provide demographic program data on children by geographic unit to a central geographic information system.

Each agency would send a data file on the numbers of children by age, sex, and race/ethnicity to OFM in each agency program. There would be no individual identifying information included with the data. OFM would compile different geographic reports (such as by city, legislative district, or school district) describing how many children of a certain age, sex, and race/ethnicity participate in a particular program. OFM would aggregate the data and set up an annual reporting system. The first annual report would be available by September 1995. OFM and the Department of Information Systems would set up the geographic information system and link it to OFM's Executive Information System. Through a computer network, individuals would be able to access different aggregated data reports tailored to their own interests.

An advantage of this option is that a geographic information system would be employed. It would provide a greater level of detail on the characteristics of children, and the ability to use geographic units in addition to school districts. It would also permit reports which cross-tabulate client characteristics. A disadvantage is that no cross-program comparisons of individual children would be available.

• Other Options

Two other options were considered. One was similar to the intermediate option recommended, and the other could be a long-term goal for data collection on children. The long-term option would create a geographic information system that receives individual data on participants and aggregates it to produce reports that track participants across programs. This is not possible under any of the other options. However, a host of confidentiality, quality of data, and cost issues would have to be considered with this option.

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The bill also required the task force to identify:

- the types of data needed;
- the cost and feasibility of various data collection options for aggregation and reporting actions, which could be implemented with little or no cost;
- actions which would require additional resources for implementation; and
- related issues (such as confidentiality, common definitions, and timeframes) as deemed appropriate.

The task force was required to consult with groups and individuals who have an interest in the report findings and present a report to the Legislature on December 1, 1991.

Task force members represented legislative staff; key state agencies involved with data collection and children's programs; and the associations of school directors, school administrators, cities, and counties. The Washington State Institute for Public Policy provided the staff support for the task force.

Data Issues

According to the "Data Collection and Reporting in the State's Common Schools" 1989 report to the Legislative Budget Committee, "Despite the wealth of data, however, and despite the entry into the computer age, analysts and policymakers often lack a complete understanding of how educational dollars are being used across the state, what the results of expending those dollars are in terms of student outcomes, and how to evaluate and improve state-wide data for their own purposes" (see page 7). Forty-six percent of the state's budget is allocated to K-12 education alone, and another 29 percent goes to social and health services. State and local policymakers need to know what programs are needed, what programs are working, and why.

Many state agencies and school districts collect information on Washington's children. However, it is almost impossible to combine data from different program sources for resource allocation, program planning, and evaluation purposes. For example, a state policymaker might want to know the number of children by age and race/ethnicity who were in foster care and the unemployment rate in each of the 296 school districts around the state. However, the information would be unavailable in that format, because while the Department of Social and Health Services (DSHS) and the Department of Employment Security collect the data using a ZIP code, they do not sort the information by school district. Additionally, it might be useful to know which children, by age and race/ethnicity, had adjudicated misdemeanors (tracked by the Administrator for the Courts) and had dropped out of school (tracked by the Office of the Superintendent of Public Instruction), but such comparisons between state programs are simply unavailable.

At the local level, school district personnel have been unable to obtain certain state social and health data that would be helpful to them, because such data is aggregated and reported by ZIP code or county, not by school district. As schools increasingly become a focal point for the delivery of various social services, they need more state-provided information on the social, health, employment, and juvenile justice backgrounds of the children they serve.

How can the data collected by different agencies be used? Many background characteristics can be used to predict how well a child is likely to do in school or upon graduation. For example, according to the Office of the Superintendent of Public Instruction (OSPI), a higher level of a mother's education may mean a higher level of the student's achievement. Studies by the National Center for Children in Poverty show that poor children are more likely than non-poor children to: be low achievers in school, drop out of school, engage in criminal behavior, become unmarried teen parents, be welfare-dependent, and earn less money. Also, in a 1986 survey, the Center found that the reported incidence of maltreatment of children living in families with annual incomes below \$15,000 was seven times that of children in higher-income families.

Washington State lacks a comprehensive system to interconnect educational, social and health, criminal, and employment data. If such a system were available, it would enable policymakers to examine patterns, predict certain outcomes, and then provide appropriate intervention services and targeted financial resources. Some programs, such as the Early Childhood Education and Assistance Program (ECEAP) in the Department of Community Development (DCD), track multi-program information on clients. Also, there are some interagency agreements to share data across programs, such as the one between OSPI and the Department of Employment Security to track vocational education students. Appendix A (page 21) lists examples of the state agencies and other entities' data reports on child well-being.

Technological Advances

Until recently, merging varied information from different programs was difficult and expensive, involving either a good deal of manual map processing or the use of expensive, mainframe-based software. However, the advent of geographic information system software for personal computers and workstations makes it possible to collect program data from different sources over different geographic areas (such as census tracts or ZIP codes), merge it, and report the data by altogether different geographic areas (such as cities, school districts, and legislative districts). This is possible when the different sources agree on how to report client or student addresses. (If data were available only by ZIP code and not specific addresses, cruder estimates could be made.)

In 1992, OSPI will be able to report the 1990 Census data by school district using the Census' TIGER (Topologically Integrated Geographic Encoding and Referencing) System. This system provides streets and certain landmarks for the entire state which, when used with a database that contains client addresses, can be fed into a software program to create aggregated client information for any defined geographic boundary. Thus, using the 1990 Census information and TIGER, OSPI can produce profiles which present a wide range of household information such as race and ethnicity, income, migration, and housing for each of the 296 school districts. Possibilities exist for integrating state-level data on children with various geographic boundaries in the future (similar to what is available from the U.S. Census data using TIGER).

Policy Framework

The interagency task force created by SB 5474 began a thorough review of what data on the education and well-being of children is now available at each of the state agencies, including OSPI. Due to the limited time and scope of the bill's mandate, the task force did not pursue an in-depth review of individual school district data collection efforts.

The task force adopted a policy framework for categorizing data elements to help answer questions relating to *resource allocation* and *program evaluation* that are important to both state and local policymakers.

Examples of *resource allocation* questions for which additional data would be useful include:

Target financial resources

• Which school districts have students with special needs? In what proportions?

Growth/decline of school-age population

- Which school districts/school buildings can expect to grow or decline based on enrollment forecasts?
- What will these enrollments mean for new facility construction?
- What types of additional programs and staff will be needed to assist what types of students? Where will these needs arise?

Child well-being

- What is the proportion of children in each school district (or some other geographical boundary) who have background factors (e.g., economic and social) that may impair student performance?
- What services are needed for what kind of children in each school district?
- Who should provide these services?

Examples of *program evaluation* questions for which additional data would be useful include:

Effective school programs

- Which districts offer models of school improvement efforts that should be disseminated?
- What have been the effects of individual programs designed to address specific programs in schools?

Student outcomes

- Which school districts/school buildings have low (or high) drop out rates?
- Which school districts/school buildings have students with high (or low) achievement levels?
- What are students doing after they finish their high school education? (e.g., work, college, or vocational school.)

Data Elements

After framing the policy issues, the task force looked at the data elements that would provide information to help answer the policy questions. They reviewed a number of sources of data. One source, the "State of Washington's Children" (June 1991), surveyed 90 "children's experts" (e.g., doctors, community representatives, and teachers) across the state, and found that three issues are critically linked to the well-being of children: "poverty, disruption of family life and inadequate access to health care" (see page 9).

Another source, "Kids Count Data Book on State Profiles of Child Well-Being," published by the Center for the Study of Social Policy, tracked the following indicators: percent of births with no early prenatal care, infant mortality rate, percent of low birth weight babies, benefits as a percent of the poverty threshold, percent of students who do not graduate from high school, teenage unemployment rate, education expenditures, percent of births to teenage mothers, and juvenile incarceration rate.

OSPI and Washington's Office of Financial Management (OFM), through the U.S. Census, shared with the task force key indicators they track on children and families.

In conjunction with the statewide achievement tests, OSPI annually surveys all children enrolled in school who are in grades 4, 8 and 11. The survey asks a variety of questions, including: whether English is spoken in the home, when the student enrolled in the school district, whether the student participated in a Head Start program (4th grade only), and what is the education level of the student's parents (8th and 11th grades only).

Using the Census, OFM provides information every 10 years on key family background characteristics such as race and ethnicity, employment, migration, education level, and home ownership.

Using all of the above information, the task force distilled five key characteristic areas in which data elements could be used to track the well-being of children:

- poverty status
- family status
- health status
- criminal status
- educational status

Table 1 (page 5) describes these areas and their accompanying data elements under the framework of policy questions used by the task force. It also describes the agency collecting the information, under what boundaries it is collected (such as county, school district, or ZIP code), when it is collected, and on whom it is collected (child or family).

TABLE 1Policy Issues and Related Data Elementson the Education and Well-Being of Children

I. Allocation of Resources Data Category: Poverty Status

Data Element*	Agency/ Division Collecting	Boundaries Available**	Data Collection Timeframe	Data Collected on Individual Child or Family
AFDC/FIP	DSHS	ZIP	Monthly	Child (DSHS Identifies)
Food Stamps	DSHS	ZIP	Monthly	Child (DSHS Identifies)
Free and Reduced Lunch Program	OSPI	School District	Annual	Child
Medicaid	DSHS	ZIP	Monthly	Child (DSHS Identifies)
Income Level of Household	OFM (Census)	School district/ZIP/ Census tracts and block groups	Every 10 years	Family, household, and persons 16 years old+

*Three sets of data derived from the data elements can be used. The first set (especially with OSPI and DCD data) can be used to describe the actual students within a community or school district. The second set (especially with census data) can be used once every ten years to describe the characteristics of families living within the school district, but not actual students. The third set of data (e.g., information on birth certificates) records a "snapshot in time" of certain family characteristics of the community/school district, but does not reflect migrations that have occurred since the "snapshot" was taken. **Boundaries reflect lowest level of geography possible for data aggregation.

KEY: **AFDC** = Aid for Dependent Children; **FIP** = Family Independence Program; **DSHS** = Department of Social and Health Services; **OSPI** = Office of the Superintendent of Public Instruction; **OFM** = Office of Financial Management; **DCD** = Department of Community Development

Data Element	Agency/Division Collecting	Boundaries Available	Timeframe for Data Collection	Data Collected on Individual Child or Family
Number of Adults in Family	OFM (Census)	Census tract and blocks/ School district/ZIP	Every 10 years	Family
Race and Ethnicity	a. OFM (Census)b. OSPI (Survey)*	a. Census tract and blocks/School district/ZIPb. School district	a. Every 10 yearsb. Annual	a. Child b. Family
Length of Residence	a. OFM (Census)b. OSPI (Survey)*	a. Census tract and blocks/School district/ZIPb. School district	a. Every 10 yearsb. Annual	a. Family b. Child
English is Primary Language Spoken in Home	a. OFM (Census)b. OSPI (Survey)*	a. Census tract and blocks/School district/ZIPb. School district	a. Every 10 yearsb. Annual	a. Family b. Child
Education Level of Parents	a. OFM (Census)b. OSPI (Survey)	a. Census tract and blocks/School district/ZIPb. School district	a. Every 10 yearsb. Annual	a. Heads of householdb. Family
Foster Care (location of foster care family)	DSHS	ZIP	Monthly	Child
Number of Children by Age	a. OFMb. OSPI (Number of children enrolled by grade)	a. Census tract and blocks/School district/ZIPb. School district	a. Every 10 yearsb. Monthly	a. Child b. Child
*OSPI student survey of	of 4th, 8th, and 11th grade students.			

Data Category: Family Status

Data Element	Agency/Division Collecting	Boundaries Available	Timeframe for Data Collection	Data Collected on Individual Child or Family
Physical Disability	a. OSPIb. Department of Health (DOH)	a. School districtb. Census tract/ZIP/County	a. Annual b. Monthly	a. Childb. Child (congenital: 0-3) (acute: all ages)
Mental Disability a. Clinical b. State-supported program c. State-supported program 1) Mental Health Services 2) Developmental Disability Services	a. OSPI b. DOH c. DSHS	 a. School district b. Census tract/ ZIP/County c. ZIP 	a. Annualb. Monthlyc. Monthly	 a. Child b. Child (congenital: 0-3) (acute: all ages) c. Child
Child Protective Services Referrals	DSHS	ZIP	Monthly	Child
Teen Births, Abortions, and Fetal Deaths	DOH	Census tract/ZIP/ County	At time of birth	Child
Low Birth Weight	DOH	Census tract/ZIP/ County	At time of birth	Child
Injury Rates a. Recorded hospital treatment b. Claims submitted	a. DOH b. Labor & Industries	ZIP	At time of occurrence	Child
State-Supported Substance Abuse	DSHS	ZIP	Monthly	Family (not necessarily child)
Deaths	DOH	Census tract/ZIP/ County	At time of death	Child (death certificate)

Data Category: Health Status

Data Element	Agency/Division Collecting	Boundaries Available	Data Collection Timeframe	Data Collected on Individual Child or Family
Adjudicated Misdemeanors*	Administrator for the Courts	School district/ School building	Daily	Child
Adjudicated Felonies*	Administrator for the Courts	School district/ School building	Daily	Child
Diversion*	Administrator for the Courts	School district/ School building	Daily	Child
*King County information	is not available through the Ad	dministrator for the Courts d	latabase.	•

Data Category: Criminal Status

II. Program Evaluation

Data Element	Agency/Division Collecting	Boundaries Available	Data Collection Timeframe	Data Collected on Individual Child or Family
Drop-out Rates	OSPI	School district/ School building	Annual	Child
Attendance	School districts	School district/ School building	Daily	Child
Test Scores	OSPI	School district/ School building	Annual	Child
Employment	a. OSPIb. EmploymentSecurity	a. School district/ School buildingb. ZIP	a. Annualb. Quarterly	Child
Discipline Incidents	School districts	School district/ School building	Daily	Child
Early Childhood Education and Assistance Program (ECEAP) Participation	DCD	School district/ School building	Quarterly	Child
Involvement in Athletics or Extracurricular Activities	School districts	School district/ School building	Monthly	Child
Participation in Higher Education	OFM	County	Annual	Child
Participation in Vocational Educational programs	School districts/ OSPI	School district/ School building	Annual	Child

Data Category: Educational Status

<u>Data Gaps</u>

While all of the above data elements are helpful, according to national studies the best indicators of student school achievement are those relating to child well-being. However, of those, there are several specific areas for which data is currently unavailable. Some missing elements include: the number of children under 16 years of age who are working but not reporting their employment, the number of children in day care and in what type of day care they are enrolled, the number of migrant children who may not be enrolled in school, and the number of children who do not have health care.

While the Census generates a wealth of information, it only provides a "snapshot in time," rather than an ongoing database that can track trends. This "snapshot" loses some accuracy every year beyond the census year. Further, the Census information relates to the head of household rather than the household's children, so it is best used as a profile of heads of households and their families who live in a specified area. OFM is considering a proposal to update the Census information with a state survey asking similar Census questions every two years. This survey would greatly strengthen use of the Census data to examine trends. Currently, Oregon does such census survey updates every two years.

Outcome data is one of the more difficult pieces of the data collection puzzle. The task force spent a small amount of time reviewing information on the results of a variety of special children's programs. Some programs, such as ECEAP, have a built-in comprehensive evaluation requirement. Many other programs lack such a requirement and have not set aside funding--consequently, they are not evaluating the effectiveness of their programs. In addition to a variety of local educational enhancement programs, two of the major children's programs funded in the fiscal year 1991-93 budget which lack an ongoing evaluation include: The Omnibus Drug Act program, which provides grants to support school district substance abuse programs; and the Fair Start program, which provides early intervention mental health services. The data collected under the proposed options cannot substitute for a carefully designed evaluation of specific children's programs.

Task Force Questions and Options

As the task force examined methods for collecting and reporting the data elements, five basic questions were addressed:

1. Who should benefit from the system set up (e.g., schools districts, other programs)? The task force members believed that the data system should be available for a wide variety of state and local audiences, as long as the output data is controlled through the designated reporting source(s) for accuracy and that the source(s) maintained the confidentiality of individuals.

2. Should the data be aggregated or individualized?

Senate Bill 5474 clearly referred to aggregated data. Task force members did look at some options in which individual data would be collected, but it would be reported only at an aggregate level.

3. How would confidentiality be handled?

In the options presented below, Option D (page 13) is the only one which would need strong confidentiality safeguards to protect individual data. There are many examples of confidential procedures (e.g., Department of Employment Security and the Administrator for the Courts) that could be adopted. DSHS has some statutory prohibitions on sharing data for some of its programs (e.g., mental health). Some statutory changes would be needed, or DSHS could agree to perform data analyses from the central geographic information system. The Department of Health (DOH) has some major reservations about the ability to share individual data while protecting

confidentiality. Both DSHS and DOH would want to pursue individual data collection options very cautiously.

4. What kinds of information would be available? How useful would it be for policymaking purposes?

Collecting huge amounts of data for ad hoc series requests would be an ineffective final goal. A thoughtful series of annual reports could be produced using the data, which describe a number of data elements and examine their interrelationships. If a centralized geographic information system is pursued, electronic spreadsheets on aggregated data could be made available to a number of users. One possible system might be the State of Washington Policy Database Executive Information System. OFM is responsible for developing and enhancing this system. The system's goal is to provide a single database with information that is easily accessible, timely, concise, and presentable in graphic forms.

Upon reviewing the options laid out below, policymakers will need to determine how useful each option is to their policymaking needs. Some options will provide information only about the total estimated number of children served by a particular program in a particular area. Other options add information to the number of children using data on age, sex, race/ethnicity, inter-program relationships, and accurate counting of the numbers of children. An interagency task force with representation similar to that of the current task force would be needed to implement the various options.

5. What are the short-term and long-term options? What are the costs of each option? What actions are required to implement each option?

The four options described below are summarized in Tables 2, 3, 4, and 5 (pages 14-18) for comparison purposes. Table 2 shows inputs and outputs for the options, Table 3 assesses the feasibility of each one, Table 4 estimates their costs, and Table 5 lists the implementation steps required for each option.

• Option A: ZIP Data Converted to Estimated School District Totals.

Annually, each agency would send to a central reporting authority a tape of aggregated data by ZIP code containing the estimated total number of children who are enrolled in each data element identified in Table 1. The children from a particular program (e.g., Medicaid) would be aggregated and identified only by ZIP code, so that the central reporting authority could translate the list in total numbers of children from ZIP code into total estimated numbers of children enrolled in a particular program by school district.

Since Option A would organize the program information by school district only (not by any other geographical unit), it would be of little use to most of the state agencies who would be required to report the data. No comparisons could be made between different programs (e.g., number of children who were on Medicaid who were also enrolled in ECEAP) and no demographic information (e.g., age, sex, race/ethnicity) on individuals in those programs would be available. The fit between ZIP code and school district boundaries is not always close, which would diminish the accuracy of data portrayed. OSPI would not be able to report its data by ZIP code until the second year of this option's implementation, as it does not currently collect data on students by ZIP code.

Under Option A, Employment Security would be unable to provide information on all employment, although they could provide information on employment in their special youth programs.

Costs: The total first year cost for all state agencies is \$83,790. The total subsequent annual cost for all state agencies is \$61,315. Table 4 (page 16) provides more detail.

<u>Steps to implement</u>: Under Option A (as with Options B and C), the data sent by each agency would be assumed to be accurate. Before the agencies actually sent tapes to the central reporting authority, an interagency task force would be established to examine what report format and annual reporting period should be used. Once the central reporting authority received the data submitted, they would produce an annual report showing the numbers of children (or families) under each of the data elements listed for each of the 296 school districts. Assuming an appropriation is made, this option could be implemented and reports could be available from the central reporting authority in 1992. Table 5 (page 17) provides more detail.

Option B: Aggregated Data Reported to a Central Geographic Information System.

Annually, each agency would send to a central reporting authority an aggregated list of enrolled children by program, including some demographic data, using a nine-digit ZIP code (or another defined geographic unit). The central reporting authority would have a geographic information system capability to sort the program by a variety of geographic boundaries such as school district, county, city, and census tract. This information then could be used by a variety of entities to examine the estimated total numbers of children (and total estimated numbers of children by sex, age, and race/ethnicity) enrolled in a program based on school district, city, county, census unit, etc. (e.g., total number of black children on Medicaid in a school district or total number of five-year-olds on Medicaid in a school district). This option would permit only aggregated comparisons between geographical units or between different populations within a certain program. Under this option, client characteristics could not be cross-tabulated.

Costs: The total first year cost for all state agencies is \$383,935. The total subsequent annual cost for all state agencies is \$226,509. Table 4 (page 16) provides more detail.

<u>Steps to implement</u>: Under Option B, the interagency task force's duties would be expanded to examine uniform definitions for the added demographic variables of age, sex, race/ethnicity, and geographic unit. The central reporting authority would continue to produce an annual report on the data submitted showing the additional demographic features. While the report would present the information using school district boundaries, other political or program boundaries could be obtained by individual agencies, who could access the information on an electronic spreadsheet using the central geographic information system. Assuming an appropriation is made, this option could be implemented and reports could be available from the central reporting authority in 1994. **Option B was rejected by the task force because it costs almost as much as Option C, but far less information would be available.** Table 5 (page 17) provides more detail.

• Option C: Demographic Program Data by Geographic Unit Reported to Central Geographic Information System.

Annually, each agency would send to a central reporting authority a list describing individuals (without using client identifiers) with certain demographic characteristics by program enrollment, using a nine-digit ZIP code (or other geographically defined unit). The central reporting authority would have the geographic information system capability to do the same sorts as those under Option B. They also could provide the estimated number of children by sex, race/ethnicity and age in a particular program (e.g., total number of five-year-old black children enrolled in Medicaid within a certain school district). Thus, some cross-client characteristics (e.g., combinations of age and sex data) would be available. However, information between programs would still be unattainable because there is no way of matching individuals with a unique identification number across different programs. We would not be able to know, for example, the number of school children enrolled in Medicaid who are also getting free or reduced priced lunches.

Costs: The total first year cost for all state agencies is \$383,960. The total subsequent annual cost for all state agencies is \$257,179. Table 4 provides more detail.

<u>Steps to implement</u>: Under Option C, the interagency task force would add to its list of duties the need for confidentiality procedures. The annual report by the central reporting authority would be similar to Option B, with some additional comparison charts available using the demographic information for each program. Assuming an appropriation is made, this option could be implemented and reports could be available from the central reporting authority in 1995. Table 5 (page 17) provides more detail.

• Option D: Individual Identified Data Report to a Central Geographic Information System. Annually, each agency would send a list of individuals enrolled in a program, using a common identifier and an address to a central reporting authority. The central reporting authority would have the geographic information system capability to provide information on actual numbers of children, their demographic characteristics, and in what programs they were enrolled by any type of geographic unit. This is the only option that would permit comparisons of individuals across various programs. This option also has major confidentiality problems, data quality concerns, and cost issues associated with it.

Costs: The total first year cost for all state agencies is \$782,514. The total subsequent annual cost for all state agencies is \$583,179. Table 4 (page 16) provides more detail.

<u>Steps to implement</u>: Under Option D, the interagency task force would need to establish strong confidentiality procedures to protect individuals. As mentioned above, some statutory changes may be necessary, or certain agencies with confidentiality restrictions may need to create the aggregate information from their individual data for the annual report and other requests themselves. Additional uniform definitions would be needed on the various data elements and address reporting standards; the most important uniform definition would be the individual client identifier used. The most likely identifier would be the individual's Social Security number. When such a number is used, there will need to be a check digit to try to weed out incorrectly recorded Social Security numbers. Assuming confidentiality issues were overcome and an appropriation is made, this option would take from five to ten years to implement. Table 5 (page 17) provides more detail.

	1			1
VARIABLE ("Yes" = variable would be needed for the option; "No" = variable would not be needed.)	OPTION A Convert ZIP data to school district boundary	OPTION B Aggregate data reported to central geographic information system	OPTION C Demographic program data reported by geographic unit to central geographic information system	OPTION D Individual identified data report to central geographic information system
Unit of Service/	Yes	Yes	Yes	Yes
Name of Program				
Geographic Unit (nine-digit ZIP selected by Task Force; other units possible)	No (five-digit ZIP)	Yes	Yes	Yes
Number of children underYes21		Yes	Yes	Yes
Three demographic variables (age, sex, and race/ethnicity)No		Yes	Yes	Yes
Individual data with no identifier	No	No	Yes	No
Address	No	No	No	Yes
Individual Identifier	No	No	No	Yes
OUTPUT EXAMPLE	Total estimated number of children on Medicaid in each of the 296 school districts.	Total estimated number of children who are of: 1) X age, or 2) Y race/ethnicity, or 3) Z sex on Medicaid in a school district, census tract or city, etc.	Total estimated number of children of X age, Y race/ ethnicity and Z sex on Medicaid in a school district, census tract, city, etc. (whichever geographic unit).	Total actual number of children of X age, Y race/ ethnicity, and Z sex, who are on Medicaid, went through the ECEAP program and scored in the 75% percentile on their standardized tests, by any type of geographic unit.

Table 2Inputs and Outputs

	OPTION A Convert ZIP data to school district boundary	OPTION B Aggregate data reported to central geographic information system	OPTION C Demographic program data by geographic unit reported to central geographic information system	OPTION D Individual identified data report to central geographic information system
Pros	 No geographic information system needed. Least impact on reporting authorities. No confidentiality issues. 	 More information for state reporting entities and school districts. Provides reasonably good estimates. No confidentiality issues. 	 Tabulations of demographic variables (but not between programs). Provides reasonably good estimates. 	 Cross-tabs* to enable complex comparisons between programs. Provides actual numbers of children.
Cons	 Estimates, not actual numbers of children. Limited information for state reporting entities. No cross-tabs.* More difficult for OSPI and Employment Security to implement. 	 Geographic information system needed. Agreement on common definitions for geographic units and demographic variables. No cross-tabs.* 	 Geographic information system needed. Agreement on common definitions for geographic units and demographic variables. Limited confidentiality issues. 	 Geographic information system needed. Agreement on common definitions needed for geographic units and demographic variables and data elements from different programs. Major systems development needed. Major confidentiality issues for Department of Health and Department of Social and Health Services.

Table 3Feasibility Assessment

*Cross-tabs provide the ability to take individual characteristics, such as age, sex, or type of program, and put them together to look at different combinations, such as the number of male children between the ages of 10-15 who were referred to Child Protective Services and had adjudicated misdemeanors.

	OPTI	ON A	OPT	TON B	OP1	OPTION C		ION D
	First Year Costs	Subsequent Annual Costs						
Office of Financial Management	\$39,940	\$30,780	\$133,220	\$ 62,020	\$146,900	\$ 77,040	\$168,260	\$ 98,740
<i>Office of the Superintendent of Public Instruction</i>	\$ 2,000	\$ 4,500	\$ 61,750	\$ 13,750	\$ 48,000	\$ 27,500	\$ 48,000	\$ 27,500
Dept. of Social and Health Services ¹	\$21,500	\$21,500	\$104,400	\$104,400	\$106,300	\$106,300	\$409,600	\$409,600
Dept. of Community Development	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Dept. of Health	\$19,415	\$ 3,600	\$ 61,564	\$ 23,338	\$ 59,759	\$ 23,338	\$133,653	\$ 24,338
Employment Security ²	\$ 935	\$ 935	\$ 23,001	\$ 23,001	\$ 23,001	\$ 23,001	\$ 23,001	\$ 23,001
Administrator for the Courts	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Total Costs ³	\$83,790	\$61,315	\$383,935	\$226,509	\$383,960	\$257,179	\$782,514	\$583,179

Table 4Cost Estimates

¹Dept. of Social and Health Services dollars includes federal funds sources.

²Employment Security costs assume that they can obtain social security numbers on students from the Office of the Superintendent of Public Instruction in options B, C, and D.

³School district costs not included. More detailed financial information may be obtained from the Washington State Institute for Public Policy.

	OPTION A	OPTION B	OPTION C	OPTION D
Assume Data Reported is Correct.	Yes	Yes	Yes	No
Establish Interagency Committee to Determine:			-	-
1) Use of recommended data elements.	Yes	Yes	Yes	Yes
2) Appropriate reporting formats.	Yes	Yes	Yes	Yes
3) Uniform annual reporting period.	Yes	Yes	Yes	Yes
4) Uniform definitions for age, sex, race/ethnicity, and standard geographic unit.	No	Yes	Yes	Yes
5) Uniform definitions on data elements	No	No	No	Yes
6) Methods such as a check digit to clean up inaccurate data.	No	No	No	Yes
7) Confidentiality procedures.	No	No	Yes	Yes
8) Individual client identifiers (probably a Social Security number).	No	No	No	Yes
Agencies Annually Send Data to a Central Reporting Authority:				
1) Aggregate Data.	Yes	Yes	No	No
2) Individual Data.	No	No	Yes	Yes
Central Reporting Authority Makes Data Available Through:				
1) Annual hard copy report.	Yes	Yes	Yes	Yes
2) Central geographic information system, possibly using the Executive Information System.	No	Yes	Yes	Yes
3) Spreadsheets on request.	Yes	Yes	No	No
Reporting Agencies Will Need to Clean Up Inaccurate Data for Individual Client Match:	No	No	No	Yes

Table 5Implementation Steps

Table 5
Implementation Steps
(continued)

April 1992	April 1992	April 1992	**
September 1992	September 1994	September 1995	**
	September	September September	September September

SB 5474 Task Force Recommendations and Summary

As requested by SB 5474, the task force makes the following recommendations:

(1) Identification of data on the education and well-being of children for planning and evaluating state and local educational programs.

The task force adopted a policy framework to categorize data to help answer questions relating to resource allocation and program evaluation. Five key data categories were identified: poverty, family, health, criminal, and educational status. A detailed summary of the data elements, as well as identification of who collects the data elements and what methods they use, may be found in Table 1 of this report.

(2) and (3) Determination of feasibility, cost, and actions required to aggregate the data outlined above by each of the school districts, and report the data to school districts and state and local policymakers.

The task force recommends that Option A be implemented in 1992 as a short-term action. Under this option, each agency would send its data on total numbers of children (collected by ZIP code and aggregated by each program) to a central reporting authority, which then would convert the data into estimated total numbers of children for each school district for each data element cited in Table 1 (e.g., the number of children on Medicaid in each school district). The task force believes that the Office of Financial Management (OFM) should assume the central reporting authority role, due to their work as the chief collector and distributor of data for the state. The data could be assembled and distributed in an annual report to state and local policymakers and school districts beginning in September 1992. This option has the lowest estimated costs because there would be no investment in a geographic information system.

(4) Identification of measures needed to assure adequate collection and reporting of data including the use of confidentiality safeguards, common data definitions and reporting timelines.

The task force recognizes the need for an ongoing task force to assist in the implementation of the options selected. The task force could be comprised of people representing state agencies and school districts, and chaired by OFM. The task force agreed that an annual reporting deadline would best fit each of the agencies' current reporting schedules. Information would probably be geared to the school year OSPI uses for collecting its data. Common data definitions increase from Option A, where the only common definition is that of defining a child to be anyone 21 or under; to Options B and C, where common definitions are needed on age, sex, and race/ethnicity (optimally, these should match the U.S. Census definitions) and geographic unit; to Option D where a common client identifier is used--most likely an individual's Social Security number.

Under Option D, and to a lesser extent Option C, confidentiality safeguards would be essential. There are many examples of how agencies currently handle data confidentiality which could serve as models; however, there are some areas where the sharing of individual data is prohibited by statute.

(5), (6), and (7) Implementation of items with little or no cost, actions and timelines for those in which additional resources are needed. Identification of other considerations.

As identified in (2) and (3) above, the task force recommends Option A with the implementation steps and costs. Because of the impending budget cuts for 1991-93, the state agencies did not believe they could absorb Option A at no cost. The greatest costs for this option are for OFM, which would compile an annual report and distribute it. Some minimal costs would be incurred by each of the agencies involved. An advantage of Option A is that it can be implemented quickly (by September 1992). A disadvantage is that it would be limited to basic descriptive information organized by school districts, and thus would not be useful for planning in other policy areas.

Therefore, the task force recommends that with an appropriation, Option C could be implemented over the next several years as an intermediate action. Under Option C, a geographic information system would be used to provide a greater level of detail on the demographic characteristics of children and the ability to use different geographic units depending upon the requests. Under Option C, each agency would send individualized program data on the numbers of children by age, sex, and race/ethnicity to the central reporting authority (again the task force recommends OFM for this role). The advantage of Option C is that it would provide different geographic reports (such as by city, legislative district, or school district) that describe how many children of a certain age, sex and race/ethnicity are on a particular program (e.g., total number of five-year-old black children enrolled in Medicaid). OFM would aggregate the data and set up an annual reporting system. The first annual report would be available by September 1995. OFM and the Department of Information Systems would set up and link the geographic information system to OFM's Executive Information System (see Appendix A for a description). Individuals would be able to access different aggregated data reports tailored to their own interests through their computer systems. The disadvantages of Option C are that no cross-program comparisons could be made, and its high cost.

The task force recognizes that Option D poses major confidentiality, quality of data, and cost issues that would need to be addressed. Option D may be considered as a long-term goal (which could be implemented in five to ten years). The quality of output data would be far greater for planning and analysis purposes than any of the other options. The singular but significant advantage that Option D offers is that it can track individuals between programs and provide a far greater level of analysis on certain client groups. If Option C is pursued, Option D may be pursued incrementally at the same time.

A draft of this report was sent to over 50 individuals, including the education service districts, the Washington School Information Processing Cooperative, and groups representing racial and ethnic minorities, as requested in SB 5474. Their comments have been incorporated into this final report.

In summary, the task force developed a policy framework to assemble a variety of data elements on the well-being of children. Four options to collect and report this data were examined. The task force narrowed its recommendations to Option A as a short-term action which could provide summary-level data on the total estimated numbers of children by school district in the data elements outlined in the report. Option C is recommended as an intermediate action which could provide some descriptive elements on the kinds of children in each program through a configuration of different geographic boundaries. To implement either Option A or Option C, an appropriation will be needed.

APPENDIX A EXAMPLES OF DATA COLLECTION EFFORTS ON CHILD WELL-BEING

Efforts by state agencies

Office of the Superintendent of Public Instruction (OSPI)

Each year, OSPI publishes two documents: "Education in Washington" and "Organization and Financing of the Washington Public School System."

"Education in Washington" provides aggregated data on teachers and staff by race/ethnicity, enrollment by district and special programs. "Organization and Financing of the Washington Public School System" describes the state, local, and federal funding processes to support all the different school programs.

OSPI is connected to a network of nine educational service districts (ESDs) and 276 school districts. The network is used primarily by OSPI to collect and exchange data, distribute bulletins and memorandums, and communicate electronically with districts and ESDs.

OSPI annually surveys all children attending public school in grades 4, 8 and 11. These questionnaires have a variety of questions ranging from how students spend time away from school (all three grades), to describing their school's atmosphere (8th and 11th grades), to describing the types of courses taken in school (11th grade only). Each January, the results of these annual surveys are available to each school district.

OSPI issues a variety of bulletins on different topics such as teacher/pupil ratios, drop out rates, etc. However, no index of the topics covered in the bulletins is available.

Through an appropriation of \$650,000 in the budget this year, OSPI is collaborating with a variety of individuals to determine what improvements are needed to its hardware, software, and communication in order to aggregate data for the Legislature.

OSPI is developing individual school building profiles over the next few years (pilot projects are in progress in Moses Lake and Centralia). The building profiles will describe a variety of data variables such as test scores, number of certificated staff, numbers of years of experience of 5th grade teachers, etc.

Currently, OSPI collects limited individual student data on the following: students' scores on national tests, children with learning difficulties who participate in the federally-funded Chapter 1 program, students who participate in vocational education programs in high school, where these students are employed for the subsequent five years, migrant students in Washington State, students who drop out of school, and non-residents attending school in different school districts. OSPI has an agreement with the Department of Employment Security to coordinate the tracking of current and former vocational education students.

At a future point, OSPI may examine additional ways to track individual students on a number of variables. Such tracking would require a student identification number, which raises a number of questions about ensuring confidentiality. To date, 13 states currently use a student's Social Security number for tracking purposes. Examples of the ways in which states use the individualized data include: 1) establishing automatic eligibility for the free lunch program for children on food stamps (only a parental signature is needed, instead of the paperwork normally required to enroll a child in the program) and 2) the capability to track children as they move between school districts.

Office of Financial Management (OFM)

The Office of Financial Management's Forecasting Division provides biennial forecasts (with annual updates) on enrollments for children in public school kindergarten through twelfth grade, handicapped children, and children in private schools. They also provide biennial trends on high school graduates and dropouts.

OFM is also responsible for the development and enhancement of a Policy Database Executive Information System. This system provides a single database, with information that is presentable in graphic formats. Information on children's programs in state agencies includes a history of fiscal expenditures, personnel, and some workload indicators. There is also some historical information on personnel, levy, and enrollment data by school district.

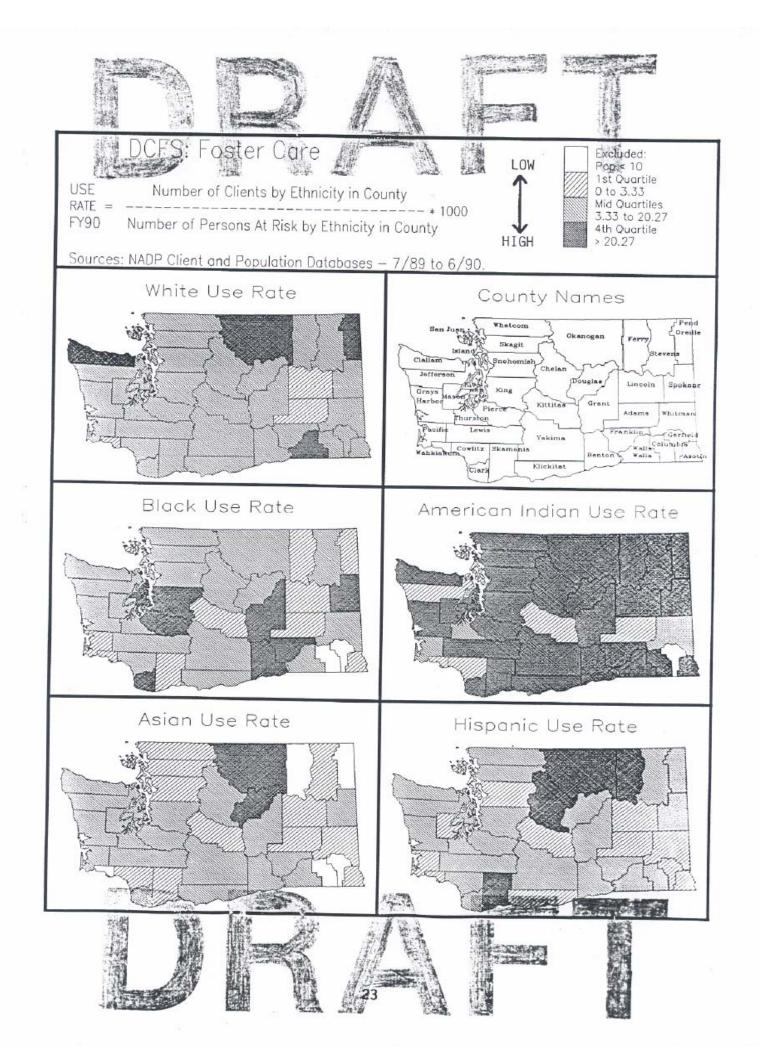
Department of Social and Health Services (DSHS)

DSHS's First Steps program expanded Medicaid eligibility for pregnant women in 1989. DSHS created a First Steps Database to serve as a monitoring and evaluation tool of the program. The database links measures of pregnancy outcomes to descriptions of maternity care services (from Medicaid payment records) and background information on the mother's health and socio-demographic status (from birth and death certificates). Through the database, analyses can be performed on the impact of specific program activities (evaluation of costs and effectiveness) and special studies of population subgroups.

The Needs Assessment Data Project has prepared a series of reports using a geographic information system. The system takes client data from a variety of DSHS programs, and provides information on use rates and service indices by county and DSHS regions to answer the following questions:

- How many people in each area use this program?
- What was the gender, age and race/ethnicity of those clients?
- How many persons in each area were estimated to be at risk of using this program?
- In each area, what proportion of the estimated at-risk population in each group became clients?
- How much money was spent per capita on clients in each group in each area, relative to the expenditures per capita on all clients in that area?

To answer the above questions, tables and maps can be produced, such as the one on the following page which describes the number of foster care clients by ethnicity in each county.





USE	Number of Clients by Ethnicity in County
RATE	* 1000
FY90	Number of Persons At Risk by Ethnicity in County

Sources: NADP Client and Population Databases - 7/89 to 6/90.

	TOTAL	1.00	WHITE		BLACK						
					DLALK		INDIAN		ASIAN		HISP. USE RATE
	USE RATE	WHITE	USE RATE	BLACK CLNTS	USE RATE	INDIAN CLNTS		ASIAN CLNTS	USE	HISP. CLNTS	
County											
UNKNOWN	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.0
ADAMS	0.00	0	0.00	Ő	0.00	ō	0.00	ŏ	0.00	ŏ	0.00
ASOTIN	11.59	46	10.07	. 0	0.00	11	104.76	ŏ	0.00	ŏ	0.00
BENTON	8.79	201	7.09	31	23.66	6	26.32	5	6.37	57	14.53
CHELAN	21.63	221	19.05	4	10.55	25	161.29	1	6.62	57	28.0
CLALLAM	27.15	279	23.23	5	13.93	90	90.09	i	5.21	- 4	9.09
CLARK	17.52	1060	17.31	91	32.16	35	49.58	8	3.95	18	7.22
COLUMBIA	6.82	4	4.77	0		1	100.00	õ	0.00	2	13.61
COWLITZ	14.74	321	15.57	10	14.08	Ó	0.00	1	2.19	5	6.76
DOUGLAS	5.94	27	4.28	1	5.56	4	59.70	3	75.00	11	9.68
FERRY	14.81	18	12.08	0	0.00	. 9	20.69	ō	0.00	2	48.78
FRANKLIN	15.05	121	17.72	27	41.03	2	29.85	4	11.98	43	8.25
GARFIELD	3.28	2	3.56	0		0	0.00	ó	0.00	Ő	0.00
GRANT	14.31	157	12.51	23	38.98	7	33.65	2	11.17	48	11.91
GRAYS HARBOR		236	15.27	3	5.85	82	81.35	ŝ	17.67	4	7.98
ISLAND	5.85	78	5.86	5	5.60	Ö	0.00	1	1.21	1	1.40
JEFFERSON	14.74	63	15.21	1	6.33	0	0.00	il	15.38	2	20.20
KING	12.95	2131	8.03	1333	42.89	432	91.97	140	4.35	130	8.99
KITSAP	13.63	534	11.84	63	21.04	54	48.91	21	8.07	21	8.60
KITTITAS	10.86	63	11.87	0	0.00	0	0.00	Ö	0.00	o	0.00
KLICKITAT	15.36	63	15.08	1	6.80	11	44.90	· 1	17.24	ŏ	0.00
LEWIS	16.49	256	16.26	6	11.67	10	51.81	1	7.04	10	15.11
LINCOLN	2.49	4	1.78	0	0.00	2	37.04	Ó	0.00	ŏ	0.00
MASON	11.83	82	9.59	5	17.42	28	52.24	2	11.83	ō	0.00
DKANOGAN	30.92	177	24.96	3	13.89	91	69.36	3	52.63	28	25.71
PACIFIC	16.04	72	18.41	0	0.00	2	10.81	1	4.18	0	0.00
PEND OREILLE	24.25	54	21.89	0	0.00	9	116.88	Ó	0.00	1	15.63
PIERCE	17.46	1764	14.12	599	33.66	229	85.64	77	8.19	71	9.01
SAN JUAN	4.71	10	5.09	0	0.00	0	0.00	Ó	0.00	o	0.00
SKAGIT	13.21	207	11.53	8	12.62	34	55.56	Ő	0.00	13	6.99
SKAMANIA	12.69	22	9.67	0	0.00	. 8	112.68	oi	0.00	2	22.73
SNOHOMISH	8.01	842	7.28	46	8.49	128	59.81	10	1.87	11	2.66
SPOKANE	18.53	1507	17.38	89	20.67	162	84.77	25	12.56	24	8.82
STEVENS	8.58	60	6.90	1	3.33	20	28.37	ō	0.00	4	17.02
HURSTON	8.49	302	8.06	18	8.32	15	18.89	10	4.83	13	6.73
AHKIAKUM	1.18	1	1.31	0	0.00	0	0.00		0.00	ō	0.00
ALLA WALLA	20.87	212	21.65	6	14.25	9	138.46	3	20.27	23	12.45
HATCOM	11.06	269	9.56	12	12.41	61	40.29	2	2.88	12	8.29
HITMAN	7.91	53	8.47	2	7.25		10 37		0.00		
AKIMA	13.17	334	10.24	28	1.25	11	19.23	0	0.001	0	0.00



Department of Community Development (DCD)

The Department of Community Development's ECEAP provides "whole child" intervention to four-yearolds in Washington through a high-quality preschool program. ECEAP tracks a variety of student background information, including: race/ethnicity, primary language, family configurations and size, mother's age at time of birth, parent educational level, income sources, and limited social services program participation. The Northwest Regional Educational Laboratory in Portland is conducting a six-year longitudinal study on a sample of past ECEAP participants and a control group which did not participate in ECEAP. These children will be tracked through the fourth grade to measure the impact of ECEAP on lowincome children. The first two years of the study are available from DCD.

Interagency agreements for sharing data

Employment Security and OSPI are tracking graduates of secondary vocational education programs to assess their employment status, occupation, average hourly wage rate, and place of employment.

OFM and OSPI have recently connected terminals to enable OFM to use OSPI's historical data on school districts to track district profiles.

The Family Income Study at the Washington State Institute for Public Policy is working with OSPI and the Administrator for the Courts to track the children from the Family Independence Program and Aid to Families with Dependent Children, with regard to test scores and juvenile detention rates.

Data collection in the school districts

According to Gerry Winkle, Kent School District Assistant Superintendent, some school districts have no common data language between the various computer systems that are used within their own school buildings, let alone an ability to access information from the state agencies.

In "Data Collection and Reporting in the state's Common Schools" (1989), the University of Washington's Institute for Public Policy and Management reported to the Legislative Budget Committee that "Although local districts collect considerable data for their own purposes, district administrators complain that the state collection formats do not allow them to fill the gaps of their own data and do not generate information at the local level that is useful for local policy development and decision making. This is due both to the unique nature of the 296 school districts and their communities and to the fact that local needs and state needs for information are necessarily different and will continue to be so" (see page 7).

Other efforts:

The Washington Child Health Research and Policy Group's first annual "The State of Washington's Children" report (June 1990) contains a wealth of aggregated graphic and statistical social and health data on Washington children. Data topics include demographics, children in poverty, children on income assistance, family composition, births to unmarried mothers, children without health insurance, Medicaid coverage of children, prenatal care, number of low birth weight babies, infant mortality, immunization, and children with AIDS.

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