

A Guidebook for Deriving the 0-4 Year Old School Census

Introduction

The Minnesota Department of Education (the Department) requires school districts to submit an estimate or a census count of zero through four-year-old children that reside in their district as of October 1. Reporting of these counts is done through the 0-4 Census Online Data Submission System. Instructions on how to report these counts and access to the 0-4 Census Online System can be found at <http://education.state.mn.us/>, click on Administrative Services and, Data Submissions.

Aid and levy revenue for Early Childhood Family Education programs are awarded to districts on the basis of the 0-4 census numbers. Currently, districts receive the formula amount of \$96.00 for each child less than five years of age, or a minimum of \$14,400.00. For districts with fewer than 150 children under age five, the accuracy of the count does not affect the amount of state aid, however, for larger districts an inaccurate count could mean the loss of considerable state aid. Data from the zero through four census is also used to determine School Readiness Funding.

The Department was concerned that preschool estimates were inaccurate. They contracted with the State Demographer's Office to develop methodologies that districts could use to improve their preschool estimates. The Demographer's office conducted a study of census methodologies used by twelve diverse Minnesota school districts. This report indicated problems encountered by these districts and proceeded to describe, in detail, three basic census methods that could be used by all districts.

To quote the demographer's report, "Our analysis concurs with *Minnesota Children* (now MDE) – school district counts of the zero-four year old population were on average too low." The deficit was particularly dramatic for the younger aged cohorts. Their conclusion was based on a comparison of school census counts to similar age cohort counts taken from the 1990 U.S. census as well as comparisons of school census numbers submitted for a series of consecutive years.

Cost of Preschool Census

School census costs varied significantly – from \$0.32/child to more than \$4.00/child. While these costs may seem high when compared to the monetary value of Early Childhood Family Education monies, the Demographer's office noted that census counts can be valuable for planning in a number of areas such as facilities and staffing, not to mention community education programs.

Recommended Census Methodologies

The Demographer's office recommends three different school census methodologies, but *does not* recommend an annual door-to-door approach; it would be both prohibitively costly and could entail personal risk to the enumerators. The three recommended methodologies are: 1) averaging, 2) administrative records and 3) the local expert.

Method 1: Averaging

Averaging is a method for estimating the number of preschoolers in a school district. The method gives good results in school districts with stable or slowly growing enrollments and with a low level of population mobility. This method can give a good estimate of preschool numbers in districts that have had difficulty maintaining an accurate database of children and do not want to expend the effort required to track all families.

Averaging is a straight-line extrapolation of the number of five year olds in the district over the past several years. Districts average the number of five year olds over the previous four or five years. This average is multiplied by five (for age groups zero through four) to establish an estimate of the number of preschool children in the district.

It is not recommended to use averaging as the only means of tracking new families and new children in a school district. Districts need to maintain a database of known preschool children to provide efficient and effective services. However, when the enrollment has been fairly predictable, districts do not need to track new children as rigorously. In this kind of situation, or even where enrollments have been mobile but on average fairly stable, averaging can give good results. However, due to high mobility, high rates of poverty and diverse and/or large geographic area, districts may want a more complete count to facilitate planning for staffing, transportation and special programs.

In districts that are gaining or losing population, the averaging method should be used with caution. With rapid growth, averaging will underestimate preschool numbers. In districts with declining populations, averaging will overestimate the numbers. In these cases, districts are strongly encouraged to use a different method.

Attachment 1 of this report, details how to use the averaging method to estimate preschool population.

Method 2: Administrative Records

This approach is the most elaborate and rigorous and is the method of choice of the Demographer's office; they would prefer all districts to utilize it. It is predicated on maintaining and updating a district's student database using a variety of record sources available in the community, county or statewide.

We assume that all school districts already have some kind of student database in place. This database is necessary to meet the Department's requirements for the Minnesota Automated Reporting Student System (MARSS). Maintaining an ongoing database of all children in the district is usually done through student information cards or sheets. Included in this information are names and addresses of parents, age of all children in the family and telephone numbers of parents and emergency contacts. Districts also have names and addresses for children enrolled in the ECFE programs and children who come to preschool screening. Districts need to insure that complete data^[1] is collected for children enrolled in private and home schools, as well as for their younger siblings.

Even in districts with rapid growth or high mobility, the student database will include the majority of preschool children. The real problem for all districts is to contact new families and to track births to families who do not have children in school. Two approaches need to be adopted.

1. The district must publicize itself in the community. We recommend including a census information sheet in at least one district mailing sent to all residents in the district every year.
2. Districts must take steps to obtain records from utility companies and county vital statistic sections.

We did not contact every electrical utility in Minnesota, but it appears that some sort of connect/disconnect list should be available to all districts. Such lists are currently made available by several major utilities, some co-ops and some municipal utilities. The lists provide districts with up-to-

^[1] Complete data includes the child's name, age, address and phone number

date mailing addresses. District personnel will need to contact local utilities to describe the information they need and the purpose for which it will be used. Phone numbers associated with these lists are often not reliable. These lists capture all new residents whether at a new or pre-existent house. New families on the utility list can be contacted and any children added to the database. Contacting new families in the district should be made initially with a mail-out form and cover letter explaining why the district needs to collect the data. If the form is not returned, a follow-up is sent. If there is no reply to the follow-up, a district may attempt to reach the household by phone.

Families on the utility disconnect list can be removed from the district's database. Districts may want to contact the family to determine their status. When students withdraw from schools in the district, younger siblings should also be removed from their database. In cases where students' addresses change, but the students remain enrolled in the district's schools, addresses should be checked to determine whether the family continues to reside within the district.

In some districts, more than one electrical utility company may serve residents. The task of finding only those new residents who live within the bounds of the district may be quite complex. Some utilities can sort connect/disconnect lists by school district, but more likely the sort will be based on mailing address or zip code. District transportation managers usually have good maps that help in discerning whether an address lies within the school boundaries.

Lists of new births in the district should be available from the county vital statistics section, but counties vary widely in the way they collect data on births. These lists include names and addresses of parents and date of birth. In places where county birth lists are not available, some districts contact hospitals directly for lists of births in their communities. The Minnesota Department of Health is willing to provide birth lists to school districts for a fee to cover processing costs. Their birth lists can be sorted by county, mailing address or zip code. School districts may also have to sort birth lists for residency. Families with babies not on the school district database should be contacted using the same procedure used with utility lists.

County birth lists may not include *all* births to residents in the county. Unmarried mothers may choose not to make the data available. In border counties, births in hospitals in neighboring states will not appear on the county's birth lists. The Department of Health, Vital Statistics section indicated that they could suppress marital status in their address lists, thereby including all new babies on their lists. Also, Department of Health lists include *all* births to Minnesota residents whether the birth occurred in Minnesota or another state. Out-of-state births should be available within one calendar year.

Other Data Sources

There may be districts that are unable to access utility or birth records. Some utilities may be unwilling or unable to make connect/disconnect lists available to school districts. Some counties may not be able to provide lists of births. However, those cases should be rare. There are other administrative records that can be used to find new families and new babies in school districts. One survey district used new phone hookup lists from the local telephone company to locate new residents. Other districts have used building permits and plat books. Another survey district used new 911 master lists.

Because electrical usage is more universal than telephone service, electrical utility connect/disconnect lists are preferable to telephone hookups. Building permits provide addresses for new housing; families who move into a pre-existing house need to be tracked by other means. Plat books list only property owners; no renters are listed. Availability of 911 master address lists varies from county to county. The county's Board of Commissioners decide whether to make such lists available to school districts.

In some areas of the state, regional consortiums may be able to provide data for school districts to use in conducting the census. TIES in the Twin Cities metropolitan area provides connect/disconnect lists from NSP to its members as well as lists of births from Hennepin County. Members are able to use the services of the TIES consortium rather than spending staff time to contact utilities and counties for address lists.

School census requests should be mailed to new residents. Districts will have to decide based on cost and staff availability whether to follow-up non-respondents with a second mailing or by phone. Districts will have to make decisions about how thoroughly they want to pursue new residents. Many districts make information packets available at places frequented by families with preschool children such as WIC clinics, social service agencies, churches, preschools and food shelves.

Attachment 2 of this report includes census procedures based on those used by one of the school districts. This district conducts a phone census each year. This district is characterized by a great deal of population mobility, growth and diversity. Staff there think that an accurate census is very important for district-wide planning as well as for a good preschool count, and the district is willing to incur the extra cost to phone residents.

Method 3: Local Expert

In a small homogeneous district, the lifelong resident staff person who has excellent contacts with residents of the district can be most effective in monitoring the census of preschool children. The estimate for preschool children is usually based on administrative records^[2] supplemented with information obtained through the staff person's contacts in the community.

This method requires a staff person well acquainted with the school district to track new families and children in the district. Local experts are important sources of information for all methodologies, but are less effective when the district has consolidated and covers a larger area. Local experts must be well connected in their community.

Local experts also use administrative records such as birth lists, formal and informal outside contacts to help maintain the district's database of children. When this method is chosen, utility lists are not required since it is assumed that the local expert will have the same information probably sooner and at less cost than using utility data.

The primary concern for districts is to find a staff person(s) who is well acquainted with the people in the district. Consolidated districts usually need one local expert for each community in the district. Small districts that lack good local experts should not use this method.

Summary of Types of Data Available for Census

All school districts maintain a database of students in their district together with addresses. These K-12 student lists are submitted to the Department to be entered into the MARSS database. Student data is the primary source for counting preschoolers. When a child enters school in a district, student information is collected from the parents including name, age and sex of younger siblings not yet in school. Consequently, if a preschool child has an older sibling in public school, the younger child will be counted in the district's preschool census. Children enrolled in Early Childhood Family Education programs are also included in the district's database.

Address lists based on current enrollment are necessarily incomplete. The problem of obtaining complete address lists for districts is difficult. School districts rarely coincide with municipal or township boundaries. Often school districts cut across county lines as well. Many metropolitan school districts rely on connect/disconnect lists from local utilities. Some utilities organize their lists by school district, but others do not, instead organizing the lists by zip code or municipality. Some districts use building permits to add new housing on their lists. Plat books in some rural areas are used, but these books do not include renters. In at least one case, the new 911 address system was used as source of addresses within a district. For St. Paul, Minneapolis, Greater St. Paul, Greater Minneapolis, Rochester and St. Cloud, *Coles' Directory* is available. These directories give the telephone numbers for addresses in the area and

^[2] These records would include birth lists, baptisms, enrolled siblings and/or family information cards.

address for phone numbers. The information should be available in printed form and on CD-ROM. The directories can be leased; districts should contact Cole's at (952) 854-5100 for complete information.

At the local level, districts often obtain names and addresses of new families from churches, Welcome Wagon, human service agencies, WIC providers and volunteer service organizations including food shelves. In small homogeneous districts, a knowledgeable staff member is relied on to keep tabs on the goings-on in the community and to follow-up for school census purposes.

Lists of births are usually available from counties. Often these lists are organized according to city. There is a great deal of variability in how counties organize birth lists. Some counties are highly automated and simply run downloads of all births several times a year, some as often as once a month. Other counties maintain birth records only on paper so that school districts in those areas have a more difficult time getting lists of births in their service area. Birth data can be restricted. An unmarried mother may opt not to release her name and details of her baby's birth (sex, date, etc.). Newspapers often print lists of births by county and city, but must respect the wishes of the unmarried mothers.

The Demographer's interviews raised questions of data privacy. The U.S. Postal Service does *not* provide address lists to schools or any other party. Checking with the Public Utilities Commission, a number of electrical utilities, sheriffs in several counties and Minnesota Statutes revealed that most address lists are not subject to data privacy restrictions in Minnesota. Utilities can and do provide address lists to school districts.^{3[3]} Some counties restrict access to their 911 address lists; the decision to release this information is made by the County Commissioners.

^[3] It should be noted that the phone numbers on these lists are often incorrect.

Attachment 1: Five Year Averaging Method

To estimate the 0 through 4-year-old population, first sum the number of five year olds in the district for the past several years. Divide the sum by the number of years, and multiply by five (the number of preschool age groups) to get the estimate of the 0-4 year olds.

Example: A district using five years of data.

Year	Number of 5 year olds in the district
1999	57
2000	74
2001	67
2002	52
2003	78
Number of years: 5	Sum of Above: 328
Divide by 5	
$328 / 5 = 65.6$ or 66	

Each age group would have an estimate of 66 children.

Age	Number of Children
0	66
1	66
2	66
3	66
4	66

Compare the sum of the five years of five year olds with the number of 0-4 students in the district's database. Usually the number obtained from averaging is higher, but if it is not, you may use the numbers from the district's database instead.

This method is recommended primarily because most districts undercount very young children. Counts of five year olds are generally much more complete because children have been through Early Childhood Screening and often are enrolled in kindergarten. The averaging method should, in most cases, be a more accurate reflection of the true number of preschoolers. This method may underestimate the preschool population in rapidly growing districts. In districts that are stable or losing population, it may be a slight over estimate.

Attachment 2: Administrative Records Method

Finding New Residents

1. Student Information Card/Sheets. Obtain from every student whether new or returning:
 - a. Name
 - b. Parent's Name
 - c. Address of student and each parent, if different from student
 - d. Telephone Number

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- e. Date of Birth
 - f. Siblings resident in the district
 - g. Other information normally collected by the district, e.g. emergency contacts, health information.
2. Obtain Connect/Disconnect Listings from Local Electric Company(ies)
 - a. Determine which companies serve residents in the district. Is there more than one?
 - b. Contact local electrical providers, if this has not been done before. A personal visit with the utility is best so the request may be spelled out to best serve the district's needs.
 3. Obtain Birth Lists From the County Department of Vital Statistics
 - a. If possible, get birth lists for communities in district from county.
 - b. If the county is unwilling to provide birth lists, contact local hospitals where births are most likely to occur.
 - c. Compare parents' names with those in the student database to see if the infant is already on the district database.
 - d. If the infant is not in the database, send a letter to the parent(s). A second request or follow-up phone call may be necessary.
 - e. Enter the new family data into the school database.
 4. Establish a Link With Private Schools, Preschools and Day Care Facilities
 - a. Set up regular reports from preschools in the district, including names of the enrolled children, family data and information on younger siblings.
 - b. Get the student and family information from non-public schools as is collected for students enrolled in public schools (see item 1).
 5. Local Publicity
 - a. Include family data sheets in all district-wide mailings.
 - b. Make family data sheets available at hospitals, WIC clinics, social service agencies, food shelves, churches, etc. in the district.
 - c. If the budget allows, include an ad encouraging new families to contact the school district in the local newspapers or shoppers.
 - d. Make an announcement on public access cable or a public service announcement on local radio or television stations.
 6. Other Data Sources
 - a. Building permits and real estate transactions can provide data on new families in a district, but only for those families who own their homes.
 - b. If it is impossible to get birth information from the county or local hospitals, contact the Minnesota Department of Health for births from your district.
 - c. It may be possible to get a list of addresses for the district through the county's 911 address system. However, not all counties make this information available.
 - d. Telephone hook-up listings may be used in those cases where electrical utility companies are unwilling or unable to provide connect/disconnect lists. If your district has a lot of families without telephone service, these listings may be less useful.

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- e. Plat books may be used to find addresses and residents, but like building permits and real estate transactions, only owners will be reflected in these books. In areas with few apartment buildings, they can provide addresses for the district.
 - f. Contact managers of apartment complexes and mobile home courts to get lists of new or departing residents.

Tracking Families and Children No Longer Residents in the District

1. When students withdraw from school because they have moved out of the district, all siblings should be removed from the district's database.
2. When students change address but remain enrolled in the district's schools, check the new address to see if it is within the district's boundaries. If they are no longer residents of the district, remove younger siblings from the district's database.
3. Utility disconnect lists should be scanned for families who have left the district.
4. If utility disconnect lists are not available, it may be difficult to track families with preschoolers who leave the district. Real estate transaction lists may offer some information in this regard, but only for property owners.

Checking the Data

1. Especially in districts where data sources are not complete, preschool counts should be checked using the averaging method to see if the numbers appear to be within expected limits.
2. Preschool counts should be compared with numbers seen in Early Childhood Screening and kindergarten registration.