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**Impact of Welfare Reform on Child Welfare  
in Cuyahoga County, Ohio**

**Presenters and Titles:**

***Kathleen Wells (Ph.D. & Chair of the Panel) B "Overview of Impact of  
Welfare Reform on Child Welfare in Cuyahoga County, OH Study"***

***Jennifer Sloan (Ph.D.) B "Key Issues in the Use of Administrative Data for  
Research"***

***Shenyang Guo (Ph.D.) B "Data Analytic Strategies for Entry-Cohort Study"***

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## **Overview of Impact of Welfare Reform on Child Welfare**

**in Cuyahoga County, Ohio Study**

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This presentation will discuss an on-going five-year study of the impact of welfare reform on child welfare in Cuyahoga County, Ohio. The study is a collaboration between investigators at Case Western Reserve University and the Cuyahoga County Department of Children and Family Services. The study would not be possible without the support of the leadership of that agency. The Annie E. Casey Foundation and the Gund Foundation have funded the study. It began one year ago and will conclude in March 2003. I will provide an overview of the study. I will describe the rationale for the study, the major components of the study, and the questions, design, variables, and data-analytic approach for the first study component-- the component on which this panel will focus. Dr. Sloan will discuss issues raised by the use of administrative data for research purposes. We spent much of the first year of this project procuring, understanding, and transforming administrative data for the first study component. Dr. Sloan's remarks are informed by this experience. Dr. Guo will discuss event history analysis, one of the data-analytic strategies to be used in the analysis of data we have obtained. Our study plan and our prior experience inform his remarks with this method (Wells & Guo, 1999).

### **Background to the Study**

Before describing our study, I want to review the purpose of the child welfare system, the ways in which such systems are organized typically, and the policy context guiding work of public child welfare agencies. This information will place our study in an appropriate context.

Initially, modern public child welfare agencies were designed to serve children for whom the usual social provisions had failed (Kadushin & Martin, 1988). In an effort to help such children, county or state-based child welfare departments provided services to strengthen

parents' abilities to meet their children's needs, to supplement the care provided by parents, or to substitute for parental care (Kadushin & Martin, 1988).

As such, child welfare services include counseling services, homemaker services, day care services, services for unmarried parents, as well as protective services and out-of-home placement services such as foster care.

Over the past fifteen years, however, public child welfare agencies have come to be dominated by their child protective function (Lindsey, 1994). Investigations of reports of child abuse and neglect, assessments of risk of future harm to reported children, and the resulting actions constitute the primary work of most agencies (Kammerman & Kahn, 1990).

The public policies guiding the work of public child welfare agencies are two: the Adoption Assistance and Child Welfare Act of 1980 and the Adoption and Safe Families Act of 1997. The first act was designed to limit the number of children in out-of-home placement and, for those who were placed, to promote their return to their own or adoptive families in a timely manner. This act required that a dispositional hearing be held within 18 months of a child's placement.

The second act, which amended the first, was designed to promote the adoption of children in foster care thereby preventing the return of children to biological parents who could not care for them. The Adoption and Safe Families Act of 1997 requires that states terminate parental rights for children who have been in foster care for fifteen out of the most recent twenty-two months. It also requires permanency hearings within 12 months of children's entry into foster care. The impact of this new legislation on the child welfare system is uncertain. However, many are concerned it will result in a greater number of children in custody of the state than in the past (National Center for Children in Poverty, 1997).

During this period of reform of the child welfare system, revision of the welfare system has been underway. As you know, federal legislation, the Personal Responsibility and Work Reconciliation Act of 1996, was passed in an effort to promote economic self-sufficiency among the poor. The act "creates a series of new work requirements for adults, sanctions for failure to meet the work requirements as well as limits on the length of time families can receive assistance (National Center for Children in Poverty, 1997, p. 3)."

State welfare reform legislation, Ohio House Bill 408, was passed in 1997. This bill establishes a three-year time limit for receipt of cash benefits and requires counties in the state to design and implement state welfare programs.

Although the impact of federal and state legislation on welfare recipients has been positive thus far for many, child welfare advocates are concerned that its impact on poor families involved in the public child welfare system will be negative. Investigations of children in out-of-home placement show that between 50% and 70% come from families who were eligible for Aid to Dependent Children at the time their children were placed (Courtney, 1994). (We estimate this percentage to be 80% for Cuyahoga County.) Many families of abused and

neglected children placed in foster care have personal problems such as substance abuse, mental disorders, and developmental delays that make it difficult for them to obtain or to keep paying jobs. Such problems may be exacerbated by the knowledge that families can lose custody of their children within twelve months of their placement in foster care. Moreover, elimination of ADC benefits to relatives who provide kinship care, the fastest growing form of care in many communities (George, Wulczyn, & Harden, 1994), may also reduce the number of relatives willing to provide care.

In summary, the impact of welfare reform on child welfare is uncertain. But the effects of welfare reform must be documented so that child welfare and other public agencies may respond effectively to any negative effects that may accrue.

### **Study Component 1**

Our study has three components. Relying on administrative data from multiple sources, the first component examines changes in child welfare caseloads before and after welfare reform. Relying on an in-depth study of families, the second component examines how neighborhood, family, and child characteristics affect use of child welfare services. Relying on interviews with key policymakers, the third component examines the policy context in which welfare reform is occurring in Cuyahoga County.

The first component addresses the following questions:

1. Are there changes in the public child welfare agency caseloads before and after welfare reform?

(Changes to be studied here include changes in number (or prevalence rate) of abuse and neglect reports, types of abuse reported, severity of abuse reports, presence of poverty-related indicators in each report, case openings, and case closings.)

2. Are there changes in the services provided to abused and neglected children before and after welfare reform?

(Changes to be studied here include changes in supportive services, family foster care services, and kinship care services.)

3. Do changes in agency caseloads correspond to changes in the community context?

(Contextual factors to be studied here include those believed to be related to child abuse and neglect. These factors include rates of unemployment, drug-related arrests, and children in the population in Cuyahoga County, for example.)

4. Are there changes in the experiences of children first entering out-of-home placement before and after welfare reform?

(Changes to be studied include the rate at which children are reunified with their biological families or are placed with guardians and the characteristics associated with the timing of both outcomes. Child-related characteristics to be studied include demographic characteristics and indicators of medical conditions. Family-related characteristics to be studied include family composition, income from jobs, and use of public assistance. Placement-use characteristics include type of placement, duration of placement, and number of moves made from one type of placement to another.)

The first three questions will be addressed with a time-series design. Such a design will allow us to examine changes in changes in child abuse and neglect reports and their characteristics before and after welfare reform. It will also allow us to examine the changes in variables believed to affect those reports such as drug-related arrests in a community over the same period of time. Data for these analyses will be drawn from several sources.

The last question will be addressed with an entry-cohort design. This design allows one to examine changes in the timing to a particular child welfare outcome such as reunification for

children entering out-of-home placement at three different time periods. These periods are prior to the onset of welfare reform, after the onset of welfare reform, and after families could expect to begin to lose cash benefits as a result of welfare reform. This design will allow us to assess the impact of welfare reform on timing to reunification directly. We will also be able to examine whether there is a link over time between parents' use of welfare benefits, income, and their children's reunification. For these analyses, data will be drawn from administrative data sets provided by the Cuyahoga County Department of Children and Family Services, the Cuyahoga County Department of Work and Training, and the Ohio Bureau of Employment Services.

We believe Cuyahoga County to be an ideal site to study welfare reform in the context of child welfare for several reasons. First, our county child welfare agency, the Cuyahoga County Department of Children and Family Services, helped to design the study and has aided its implementation. Second, the county contains the City of Cleveland which exemplified trends observed in other northern industrial cities over the past three decades: loss of heavy industry and the associated jobs; loss of population, particularly two-parent families, to the suburbs; and continued racial segregation (Coulton, Korbin, Su, & Chow, 1995). Results of the study should be of interest to other communities than our own.

At the same time, the City of Cleveland has some features, which make it uniquely suited to a study of the impact of welfare reform on the child welfare system. Cleveland is one of the 50 largest cities in the nation. In 1990, when it was compared with others, it was found to be economically disadvantaged. Cleveland ranked among the highest in percent of children who lived in poverty (43%), percent who lived in distressed neighborhoods (46%), and percent

under age 15 who lived in households that received public assistance (40%) (Annie E. Casey Foundation, 1997). Therefore, if negative consequences will accrue as a result of welfare, they should be able to be detected in this county.

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## **Key Issues in the Use of Administrative Data for Research**

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The second part of our presentation will focus on the basic issues of data acquisition and management as the next step in operationalizing the research design. In order to obtain answers to the proposed study questions, it will be necessary for us to work with data from three different sources. Data on child welfare are obtained from electronic and hard copy records from the Cuyahoga County Department of Children and Family Services (CCDCFS). Family income data are obtained from two different sources: the Cuyahoga County Departments of Work and Training, and Health and Nutrition, which provides information on income from all types of public assistance, and the Ohio Bureau of Employment Services (OBES), which maintains records of income from jobs. The combination of data from these sources will enable us to assess the impact of family financial resources on the welfare of children, and the likelihood of reunification of children with their families of origin, or placement of children with a guardian, in those cases where out of home placement has occurred.

There is a long tradition of social science research that employs secondary analysis, or the use of data collected by individuals or groups other than investigators (McCall & Appelbaum, 1991). This type of statistical analysis inherently involves using data that were originally collected for purposes other than the current investigation. While the advantages and cautions associated with using others' research data have been well documented (McCall & Appelbaum, 1991), much less information is available about the use of data collected by other groups or agencies for administrative, rather than empirical purposes. While these data are not impossible to use in empirical research, there are unique concerns about using these data

accurately. During the course of our current work on welfare reform and child welfare, we have identified five areas of specific concern when using administrative data. In many ways, these issues are no different from those faced by researchers who collect their data through the implementation of research designs constructed specifically for empirical purposes (i.e., traditional laboratory research) or those who employ data from longitudinal data collection enterprises. However, it is the treatment of these issues that differs when administrative data are used.

### **Gaining access to data**

The natural first step in the implementation of any research project is getting the data. Data acquisition in this type of research is a process, which begins with the building of a professional relationship with the agencies that collect the data of interest. One way that this can be accomplished is through identifying and meeting with agency representatives who have an interest in using research to provide them with information about their client populations or service methods that are beyond the scope or ability of their agency. Once agency interest has been established, researchers need to become knowledgeable about the agency's personnel structure. This will enable them to make data and other work requests from the appropriate individuals. The third step to data acquisition is to procure contracts, which ensure the sharing and proper treatment of data. This last step is crucial, as the data of interest in this type of research are both sensitive and confidential, and appropriate legal steps must be taken to ensure anonymity, and the proper treatment of information. This step may also be exceedingly time consuming, depending on the number of agencies involved.

## **The relationships among data sources, data collection forms, and electronic data**

### **records**

A comprehensive understanding of administrative data begins with knowledge about the agency that collects the data. This is important because researchers need to know the agency's mission and the broad rationale for the data they obtain. When data are collected from laboratory research or from longitudinal data collection operations, this information is well known to investigators. When investigators are using data collected by an agency, this is information that must be sought. Failure to do so may result in misinterpreting variables.

There are two types of background information required to use administrative data appropriately. The first is information about the purpose for collecting specific pieces of information. This is inherently tied to the goals and purposes of the agency, and the strategies by which it attempts to meet those goals. The second is information about the procedures and conditions under which specific data are collected, and how data are treated once they have been obtained. Agency purposes and procedures both have an impact on the type of data collected, and on the accuracy of those data.

For example, the mission of the Cuyahoga County Department of Children and Family Services is to assure that children at risk of abuse and neglect are protected and nurtured within a family with the support of the community. In order to realize this mission, CCDCFS collects a large amount of information on allegations of abuse or neglect, the events in a child's life that put him/her at risk for abuse and neglect, and information about community-based interventions made by the agency to reduce risk factors for children.

While this does not preclude the collection of information on individual children themselves, there is a clear distinction between these two types of information, and how they are treated by the agency. As a result, computerized data kept by this agency are more comprehensive with respect to events rather than personal identifying information and characteristics. It is also important to note that all information collected by the agency exists in paper format, and necessary data can always be added to electronic records from the original hard copy.

### **Examining raw data for completeness and reliability**

No data collection enterprise is capable of producing and maintaining error free data. It is for this reason that each type of information from a data source must be examined individually in order to assess its completeness and reliability. While some level of incompleteness and inaccuracy is inevitable, an important issue is the level of inaccuracy that is tolerable. This will necessarily depend on both agency requirements, and the proposed analytical uses of the data, which may or may not be the same. Some data may be more incomplete or less reliable than others. At CCDCFS, there are certain types of information for which the agency has a legal responsibility for accurateness. Data on these events is more complete and reliable than some other event information that the agency also records.

Conditions under which data are collected and the reliability of informational sources also affect accuracy and reliability. For example, data collection procedures include an initial

relationship between the agency and a family begins with an investigation of alleged abuse or neglect. This initial contact under inherently negative circumstances can bring about a wide range of negative reactions towards the agency as it tries to collect information about a situation. In an empirical sense, this makes them less than ideal research participants who might be more prone to deception, which in turn affects the type and quality of information they divulge.

### **Reorganizing data for analytic purposes**

The stage at which investigators begin to physically work with administrative data sets also represents a unique set of concerns. It is fairly common for researchers to underestimate the amount of work that must be done at this stage. The work involves several stages. First, data are seldom (if ever) handed to researchers ready to be analyzed. Reorganizing data may begin with the conversion of data files into a readable format for the computing environment. Second, an organizational system must be designed to keep track of all data work. This includes the various types of data received and their origins, the process of extracting variables of interest from the original data files and the creation of derived variables from original ones, and the creation and storage of data files to be used for the various statistical analyses used in the research. The complexity level of the organizational system will be proportional to the amount of data used. Finally, electronic data must be examined for redundant records and missing values and then cleaned, with some standard set of variable and value labels to be documented and applied to the working data files. The vast majority of the time spent working with data will involve these critical procedures, with relatively little time spent on actual data analysis. The procedures mentioned above require much in terms of resources. Minimally, they will require time, money, and expertise in troubleshooting hardware and software problems from a research team.

### **Integrating data from different agencies**

This is a pivotal element in our entry cohort analyses, and one, which required a great deal of time to complete. Combining data collected by different agencies is challenging because every agency has its own organizational structure for data. In order to merge data successfully, investigators must identify at least one highly reliable variable that is present in all data sets that will serve as a link among them. In our research we needed to use individuals' social security numbers in order to link records from CCDCFS files to the two types of income data. This was a great challenge due to the less accurate nature of personal identifying information in the child welfare data, mentioned above. Approximately fifty percent of the social security numbers we needed for caretakers of children in the first entry cohort were present in the electronic record. The other fifty percent were obtained by searching the CRIS-E system with names and dates of birth for caretakers to locate matches on these variables to lead us to social security numbers. This work took ten teleprocessing operators and four other research assistants approximately twenty hours to complete.

The areas of concern outlined above are vital considerations for social science researchers using administrative data. However, these concerns may only be transitional. Social service agencies and other administrative data collection agencies are now in a position

to take advantage of advances in computer technology and the data expertise achieved by other disciplines, such as banking. Adopting and modifying data storage strategies employed by fields more advanced in this area will make the empirical use of administrative data easier and more productive. Until those changes have taken place, working with administrative data will be complex, challenging and time consuming, in ways that are traditionally uncommon for the average researcher, but not impossible to overcome, and well worth the effort.

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# **Data Analytic Strategies for Entry-Cohort Study**

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## **Objective and Variables**

The objective of the entry-cohort study is to understand the impact of the use of public assistance and income on the rate at which children in substitute care are reunified with their biological families or are placed with guardians.

Children in the study sample are placed in substitute care at different points in time, and remain in care for different lengths of time. To manage this variability, we will select 18 months after each child's first entry into foster care as the period in which to examine the outcomes. Two dependent variables will be investigated: length of stay in the first spell of placement prior to reunification, and length of stay in the first spell of placement prior to guardianship.

Three types of independent variables will be used in the analysis: (1) child's demographic characteristics: for example, age at entry, gender, race, and family structure; (2) child's placement characteristics: for example, type of placement, living arrangement, reason for placement, health status, and original case plan goal; and (3) caretaker's welfare-use and employment characteristics: for example, time-varying variables of using any welfare program, funds received for food stamps, employment status, and income earned from jobs **B** each refers to the status in the 18-month window after the child's placement.

## **Proportional-Hazards Model: A Dynamic Approach**

We will employ a proportional-hazards model or Cox regression to analyze the data. This dynamic approach, widely known as "event history analysis" to social scientists or "survival analysis" to biomedical scientists, is well suited to examining questions that focus on rate of change. In this analytic approach an unobserved variable, commonly called a hazard rate, is modeled. This rate is posited as the instantaneous probability of an event's occurring, which translates the length of time it takes an event to occur into a rate expressing the speed at which it occurs. In this framework, for example, the more time a child spends in foster care, the smaller the hazard rate and the slower the speed of reunification.

The hazard rate can be linked to a set of independent variables in the proportional-hazards model. When all other variables are held constant, this allows an assessment of the association between each variable and the hazard rate, and of whether this association is statistically significant. The proportional hazards model can be expressed as follows:

$h(t|x) = h_0(t) \exp(XB)$ , where  $h(t|x)$  is the dependent variable or hazard rate at time  $t$  for subjects with characteristics of vector  $x$ ,  $h_0(t)$  is the baseline hazard function, and  $B$  is a vector of regression coefficients indicating the net association between each independent variable and the hazard rate. The exponent of the coefficient can be interpreted as the odds ratio or relative risk, similar to that for a logistic regression.

Using time-varying variable makes the investigation truly dynamic. The proportional-hazards model requires working data of a time-varying variable to be organized as a series of dummy variables, and each indicates the status (work versus non-work, welfare use versus not use) at a specific time point. By employing this technique, one can test the impact of independent variables on a dependent variable on a time-varying basis, or a relationship that is sensitive to change.

## **Hypothetical Impact of Economic Conditions on Child's Placement Outcome**

At the core of the hypothetical model of the impact of welfare reform on child's placement outcomes is the assumption that reduced family income will cause children's caretakers psychological distress, will make it difficult for them to redress the problems that lead to their children's placement, and therefore, will decrease the likelihood of reunification or of guardianship. To test this hypothesis, we will use both caretakers' welfare and employment characteristics in the analysis.

Under the welfare reform, work is a requirement for using public-assistance programs. We assume a child's length of stay in substitute care is a function of the change of his or her caretaker's economic conditions. To test this hypothesis, we closely observe the caretaker's employment status and welfare use by using time-varying variables, and link them to child's length of stay in substitute care. The multivariate analysis also controls for other factors. We expect to find that after controlling for these factors, the length of caretaker's employment spell is negatively related to child's length of stay in substitute care, and this relationship may become stronger from cohort to cohort.

### **A Pooled Model Assessing the Impact of Welfare Reform**

At the end of this five-year project, we will combine all three cohorts in one model. This pooled approach allows a comprehensive test of the impact of welfare reform on reunification. Based on the estimated model, we will compare predicted proportions of children remaining in foster care at each month within the 18-month window among three cohorts. This prediction is obtained by inserting appropriate values of the cohort variable into the estimated model and controlling for all other independent variables at their mean values. If welfare reform creates more difficult economic conditions for caretakers than they would otherwise have experienced, as we hypothesize, then, we would see three predicted proportion curves such that the first cohort's curve shown on the bottom, and the third cohort's curve shown on the top. This pattern indicates that other things being equal, more children from the post-reform cohorts remain in foster care at any time since the onset of placement, or post-reform cohorts take a longer amount of time to achieve reunification than pre-reform cohorts. Since the three cohorts were chosen carefully to correspond to important events chronologically, we would have greater confidence to attribute the differences in predicted proportions among cohorts mainly to the welfare reform. Results of the pooled model may be more complicated and may not confirm our research hypotheses. It is important to keep in mind that negative findings are possible and future studies are needed.

### **Example of Cox Regression**

To illustrate the use of Cox regression, we present results from an earlier study of reunification for children in Cuyahoga County's substitute care (Wells & Guo, 1999). The study employed the following variables in the Cox regression: cohort, age at entry, gender,

ethnicity, health status at entry, home from which the child was removed, reason of placement, first placement type, and interaction of age and ethnicity. Results identified several important factors predicting the rate of reunification. For instance, with respect to ethnicity, an African American child was reunified at a rate that is 39.8% slower than a Caucasian child; the rate of reunification for African American children increased gradually with age; African American's infants had lowest rate of reunification among all children.

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