# Planning for Human Service Reform Using Integrated Administrative Data

## Draft

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## Chapter Two: Planning for Human Service Reform Using Integrated Administrative Data

This chapter illustrates some of the potential of integrated administrative data to inform human services reform. We draw on the experience of the State of Illinois in using administrative data to support planning for both agency consolidation and a new service delivery system based on the concepts of family-focused integrated services. We focus particularly on the role of administrative data in informing agency capacity and case management planning. We also discuss how integrated administrative data may be used to support communities in their efforts to partner with the state to design and implement effective programs.

### Human Service Reform in Illinois

Longstanding interest in restructuring the human services in Illinois culminated in July 1996 in a new executive branch structure that merged most of the existing Illinois human services agencies into the new Illinois Department of Human Services (IDHS). Figure 1 shows the programs administered by each of the seven human service agencies prior to the creation of IDHS, and distinguishes those that will form part of the new IDHS from those that will remain in the legacy organizations. Thus, all programs previously administered by the departments of Mental Health and Developmental Disabilities, Rehabilitation Services, and Alcohol and Substance Abuse will now be managed by the new organization. Select programs from the Department of Public Aid, programs at the Department of Children and Family Services that are not directly related to protecting abused and neglected children (such as child care and youth services programs), and programs at the Department of Public Health that provide direct services to families and individuals (including family case management, the Women Infants and Children [WIC] program, and health-related and such prevention programs as family planning services, rape prevention, etc.) will all fall under the umbrella organization.[1]

The new IDHS has as its mission "To assist Illinois residents to achieve self-sufficiency, independence, and health to the maximum extent possible by providing integrated family-oriented services, promoting prevention, and establishing measurable outcomes, in partnership with communities" (Illinois Department of Human Services, 1997, p. 8). This mission is driven by the inherent inefficiencies of a nonintegrated system. The backdrop of welfare reform provided further impetus. The Personal Responsibility and Work Opportunity Reconciliation (PRWOR) Act of 1996 (Public Law 104-193) has introduced pivotal changes to the fundamental safety net support for poor children and their families. The 61-year-old Aid to Families with Dependent Children (AFDC) entitlement program, based on a federal-state partnership, has been replaced by the Temporary Assistance for Needy Families (TANF) capped block grant. While TANF offers states broad power to determine eligibility and benefit levels, to design and implement welfare systems that meet the diverse needs of their children and families, and to further devolve powers to communities to determine policy, it also imposes certain restrictions. The most notable are a lifetime limit of five years for receipt of cash and employment assistance and the requirement that all recipients with children older than age six begin to work within two years of receiving assistance. It had become imperative, therefore, that all states establish the most effective and comprehensive ways of working with families facing time-limited benefits.

To meet its mission and enable residents to achieve the best possible outcomes given their situations, a new service delivery model based on the concept of streamlined "one-stop shopping," focusing on intake with initial assessment and comprehensive service coordination, is being developed. Currently, it is anticipated that intake workers will help clients understand their situations, identify their assets and goals, and move from welfare to work while attaining self-sufficiency or maximum independence. The intake worker will assign eligible clients to an appropriate service coordinator. Four types of service coordinators (case administrators, self-sufficiency coaches, broad-based coordinators, and specialist coordinators) will be employed to ensure that clients receive a comprehensive package of services tailored to their specific needs. The new service delivery system is intended to promote consistent policy across related programs and to provide "a dedicated channel for community involvement and input'' (Illinois Department of Human Services, January 1997).

The attributes of reform in Illinois reflect the growing consensus that in addition to being holistic, integrated, and comprehensive, services need to be family-focused, preventive, and flexible. In addition, reform incorporates the importance of a "bottom up" approach, which emphasizes the centrality of partnering with communities to ensure that services are defined, planned, and monitored by a broad-based group of community representatives with the authority and responsibility for meeting the community's human service needs (for a fuller discussion, see for example, Agranoff, 1991; Kahn & Kamerman, 1992; Konrad, 1996; Ooms & Owen, 1991(a)(b); Priester, 1996; Waldfogel, 1997).

**Planning Information Needs**

To plan for agency consolidation and implementation of the new service delivery model and general mission, a legislative task force was appointed to make recommendations on service delivery configurations. Given the commitment to comprehensive service coordination, the task force believed that understanding the extent of service fragmentation among targeted populations would be of central strategic importance for service delivery planning and decision making. Likewise, the emphasis on family-focused initiatives pointed to the critical need for more complete data on the multiple needs of families in order to plan effective family-focused service delivery strategies. Finally, the task force assumed that the goal of partnering with communities would be more effectively planned with clear documentation of the service needs of communities.

Analyzing of the patterns of multiple service use would indicate the extent to which individuals needed to "shop" at multiple agencies in order to have their needs addressed and would quantify the potential for conflicting advice and resulting confusion. By forming a baseline understanding of the primary service clusters currently used and developing an understanding of customer segments that share common multiple needs, multiple service use analysis would inform a number of process and implementation planning activities.

**Using Administrative Data in Planning Service Delivery Configurations**

The task force believed that the administrative data records held potential for understanding the patterns of multiple service use. Because the Chapin Hall Center for Children at the University

of Chicago has a long history of working collaboratively with state agencies in developing administrative data, the task force requested that we develop a snapshot of the multiple service needs of individuals and families (i.e., cases) across all seven human service agencies and 35 services reflected in the old system.[2] Following the methods outlined in the previous chapter, we accessed and integrated individual-level administrative data records of the seven state agencies: the departments of Public Aid (DPA), Public Health (DPH), Children and Family Services (DCFS), Mental Health and Developmental Disabilities (DMHDD), Alcohol and Substance Abuse (DASA), Rehabilitative Services (DORS), and Aging (DOA).

The overall goals of the multiservice use analysis were to calculate an unduplicated count of individuals and families (cases) receiving state human services in January 1996 and to describe the prevalence and patterns of service use among individuals and cases both in January 1996 and retrospectively, from January 1990-96. To date, we have completed a number of cross-sectional and retrospective, individual and case-level analyses. As of January 1996, the unduplicated count of individuals receiving some human service in Illinois was 1.87 million, or approximately 16 percent of the population of the state. Using available case-level information coupled with the individual links across agencies and programs, we estimate that there were just over 913,000 cases as of January 1996. Analyses have been completed assessing agency and program overlap. We examine simultaneous use patterns as of January 1996, and we detail service receipt among January 1996 recipients between January 1990 and January 1996 in order to shed light on patterns of service use over time.[3]

**Using Integrated Administrative Data to Identify the Extent of Service Fragmentation**

Figure 2 shows the prevalence over five years of multiple agency overlap among the 913,000 active cases in January 1996. The data clearly illustrate significant overlap in service use across agencies. Over half the cases received assistance at multiple agencies in order to meet their needs and, therefore, received potentially fragmented services.

Figure 2 also reveals that, although the benefits of a system of coordination would be wide reaching, those accessing services at the departments of Children and Family Services (DCFS) and Public Health (DPH) were most likely to benefit given that these families had the highest probability of being served by multiple agencies. Further breakdowns reveal that the use of Department of Public Aid services is consistently high among individuals and cases served by other agencies. As expected, this rate is highest among DCFS and DPH cases, with approximately 90 percent accessing some DPA service. DPA's domination, however, masks considerable overlap among other agencies, and it is clear that no agency is operating in isolation. Well over one-quarter of cases at the Department of Rehabilitative Services (DORS), for example, have used DMHDD services over the previous five years, and almost one-fifth of DMHDD cases have used some DORS program over the same period.

The analyses clearly reveal that there was significant duplication of intake under the old system and that a coordinated system of service delivery would likely increase efficiency and savings, which might be used to provide more responsive services. Pointing to evidence from Colorado that administrative costs were reduced by consolidating support functions across multiple agencies, the task force argued that the new delivery model would reduce waste by "eliminating

the need for multiple support functions, such as computer support and fiscal operations, within each agency" (Illinois Department of Human Services, January 1997).

**Using Integrated Administrative Data to Support the Service Delivery Model**

In order to inform process and implementation planning, integrated administrative data were used to form a baseline understanding of the primary service clusters being delivered. Strategically managed organizations often identify market segments of customers. According to Heskett (1986), identifying a targeted market segment involves grouping customers by common characteristics in order to tailor a product or service to the group's needs. Although market segments have been identified by such demographic characteristics as age, gender, race, ethnicity, or income (Sommer, 1996), the task force chose to identify customer segments or a number of categories of human service users by the level of past service use across programs. These customer segments would likely share common multiple needs, as observed in the old system, and would form the basis for case management manpower planning under the new system.

Defined by the level and intensity of service use across the human services system, the following five customer segments have been identified by the task force. These segments are illustrated in Figure 3.

- Clients with economic and life skills challenges only, defined as receiving any combination of public assistance and no other service.

- Clients with multiple behavioral, social, or physical challenges involving multiple categorical specialties.
- Clients with one short-term, focused developmental, behavioral, social, or physical challenge that is clearly defined and limited in scope. Service use that defines short-term, focused clients includes selected mental health and alcohol and substance abuse programs.

- Self-sufficiency is likely within 2 years.
- Clients with one severe, long-term, focused developmental, behavioral, social, or physical challenge or issue that overwhelms other issues. Defined predominantly by use of developmental disabilities programs, clients are likely to require lifelong support to achieve maximum independence and quality of life.

- Clients with one focused developmental, behavioral, social, or physical challenge that is moderate and narrow in scope. Although clients have independence potential, they are likely to require lifelong support to achieve maximum independence and quality of life.

These clients are typically defined by use of programs, including home services, administered by the Department of Rehabilitation (DORS), or supported employment services administered by either DORS or the Department of Mental Health and Developmental Disabilities.

We categorized individuals and cases into customer segments in order to estimate the anticipated case management needs of the new service delivery system. In order to estimate the size of each of these subpopulations, we identified the retrospective service program use among the 913,000 cases receiving any service in January 1996, and, on the basis of the combinations of services accessed retrospectively, we classified cases into one of the five groupings, or customer segments. The retrospective period varied depending on data availability but fell between January 1990 and January 1996.

Although the estimations were based on a point-in-time analysis, with all of the ensuing problems of overrepresentation of long-term stayers and so forth, the state was able to conclude that, as of January 1996, and perhaps typically (although with variations across time), their client base would be predominantly those needing economic life skills only. Figure 4 shows that 59 percent of the state's clients fall into this classification. The multiply challenged represent 16 percent of their clients. Those with focused issues compose 25 percent of the service population. It is clear from combining all categories with self-sufficiency potential (the economic life skills, the multiply challenged, and the focused short term) that over 80 percent of the state's cases may achieve enhanced outcomes with more effective service coordination. Similarly, among those who will likely require life-long support, more effective interventions may enable them to achieve maximal independence and enhanced quality of life.

By providing states with a clear picture of the service needs of their residents, integrated administrative data represent a powerful tool in strategic management. It has, for example, enabled Illinois to identify targeted market segments of customers and plan appropriately for case management interventions. The task force anticipates that each of these client segments will require different case management and service coordinator interventions, each of which can be linked to a set of intake procedures and intervention strategies. It should be noted that the development of customer segments will be an ongoing process in Illinois, and their usefulness in matching customer needs with staff resources will be monitored over time.

Categorization of clients into customer segments, defined by the level and intensity of service use, may be particularly important for planning welfare reform strategies that effectively enable the state to move mandated proportions of their caseload from welfare to work within specified deadlines. For instance, clients with only economic and life skills challenges are presumably the most likely group to attain self-sufficiency and therefore should be distinguished from those clients with multiple challenges or those with one short-term, long-term, or severe physical challenge who may need additional customized interventions to attain self-sufficiency. Also, knowing how many clients with economic or life skills challenges do not receive child care or job training, for example, may prove useful in planning the number of slots in both programs. Understanding the prevalence and patterns of their service use is a vital strategic management tool that supports the design of effective interventions for maximizing self-sufficiency.

**Using Integrated Administrative Data to Support Community-Level Analyses of Service Needs**

A central part of the organizational structure of the new IDHS is the Division of Community Operations; with a field organization to link the state more closely with communities. Under the

previous system, the state did not consistently work collaboratively with communities to coordinate service priorities and resources. This division will work with communities to develop integrated approaches to solving problems, to develop plans and priorities, integrate service delivery, maximize involvement of local resources, and explore innovative approaches to meeting community needs.

In order for communities to work with the state to develop an outcome-driven, flexible, and comprehensive human service system for children and families, they first must understand the specific needs of the community and the children and families residing in them. With the capacity to support analyses of multiple service use patterns at the county or smaller geographic level, the integrated administrative database can assist select communities in Illinois in becoming more knowledgeable about their prevalence and patterns of multiple service use.

The backdrop of welfare reform and the accompanying increased devolution of fiscal and organizational control to communities means that much of the responsibility for developing service delivery systems that can work effectively with families facing time-limited benefits will lie with those communities. Understanding the prevalence and patterns of client service use at the community level is therefore a vital strategic management tool that supports the design of effective interventions at the community level for maximizing self-sufficiency. These patterns can, for example, help in pinpointing where more services (such as child care or jobs training) are needed. Understanding the extent of multiple challenges faced by welfare recipients can help in setting exit performance targets and in identifying the skills needed by workers to address clients' issues.

Table 1 illustrates the variation across four Illinois communities in service use patterns among cases participating in the means-tested income program Aid to Families with Dependent Children (AFDC) that will carry time limits under welfare reform. Note the large variation in service use across communities, which illustrates the importance of such disaggregation. The range in use of mental health outpatient services among AFDC recipients, for example, lies between 7 percent in Community 3 to 27 percent in Community 1.[4] It is generally believed that in order to exit the AFDC program, families need to obtain reliable child care and may benefit from job training. The integrated database allows each community to identify the extent of use among its AFDC cases of both state-subsidized direct pay child care (available to AFDC clients who are employed) and job training. This information will be vital to planning for future additional slots needed in both areas. Table 1 shows that the prevalence of job training program participation among AFDC cases varies from 14 percent to 31 percent across the communities studied, illustrating the importance of desegregated data for effective community planning. Categorizing clients into customer segments at the community level may be particularly important for setting performance targets and planning welfare reform strategies that take sufficient account of the variation in the degree of challenges facing families across communities. Clients with multiple challenges or those with one short-term, long-term, or severe physical challenge may take a longer time and need additional, customized interventions to attain self-sufficiency than their counterparts with economic life skills challenges only.

**Conclusion and Future Research**

We have shown how an integrated administrative database can be used to plan for agency consolidation and a new service delivery model at both the state and community levels. Analyses using administrative data have important implications for case management planning and self-sufficiency plans for welfare recipients facing time-limited benefits. Because of the variety of data it contains, the database described here lends itself to many applications. It can be used to analyze a very narrowly defined population of adults or children within a single agency, or to study the entire population of individuals receiving any combination of services. Analysis may be defined according to a presenting problem, a type of placement, a cohort defined by birth date or entry into their first service, a point in time, or a family characteristic.

Cross-sectional and retrospective analyses based on point-in-time populations have some limitations, however, not least of which is that they overrepresent long-term stayers by undercounting those who exit the system most rapidly. It is important that the design of the new system takes sufficient account of the needs of short-term stayers --a group for whom an effective system that supports an early exit is imperative. Understanding how families enter the system, use services over time, and exit the system is essential to discovering ways to reduce dependence on the human services system.

Future work will therefore follow a series of cohorts of new entrants to the human services system from 1990 onward. Currently, new entrants in 1990 can be tracked for up to six and one-half years; later cohorts will be tracked for the available time period. This longitudinal record of service history careers will illustrate the combinations of services families have received over time, their transitions from one setting to another (program or agency), and their exit from the system. Because the database will be updated periodically as data become available, it will remain current and will grow to encompass an ever-larger body of information on families already in the database and new entrants to the service system.

Among the central objectives of our future research are to identify the initial point of intake in terms of first service used and the sequence of service use, calculate the average duration of service use by program or program combination, and assess patterns of exit rates from programs. Understanding the human service careers (timing and duration of service receipt) and how these patterns differ across communities will provide the state and community with vital local-level information for developing effective pathways toward self-sufficiency.

Understanding how patterns of service use differ across human service delivery systems, and how these differences affect similar clients across different communities (due to proximity of services, etc.), has important operational implications for the state. As the human service delivery model evolves in Illinois and the state implements various models, we plan to identify service use patterns among families over time under the different systems. Such analyses will contribute to our understanding of differences in access to services under different service delivery systems.

The administrative data that agencies collect are an untapped resource for answering basic questions about the design of the service system and how that design should vary across

communities. Once constructed, such a database can be updated and used for ongoing monitoring that supports implementation and management decisions.

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## Endnotes

[1]. The seventh cabinet-level department providing human service programs, the Department of Aging, has not been incorporated into the new legislative structure.

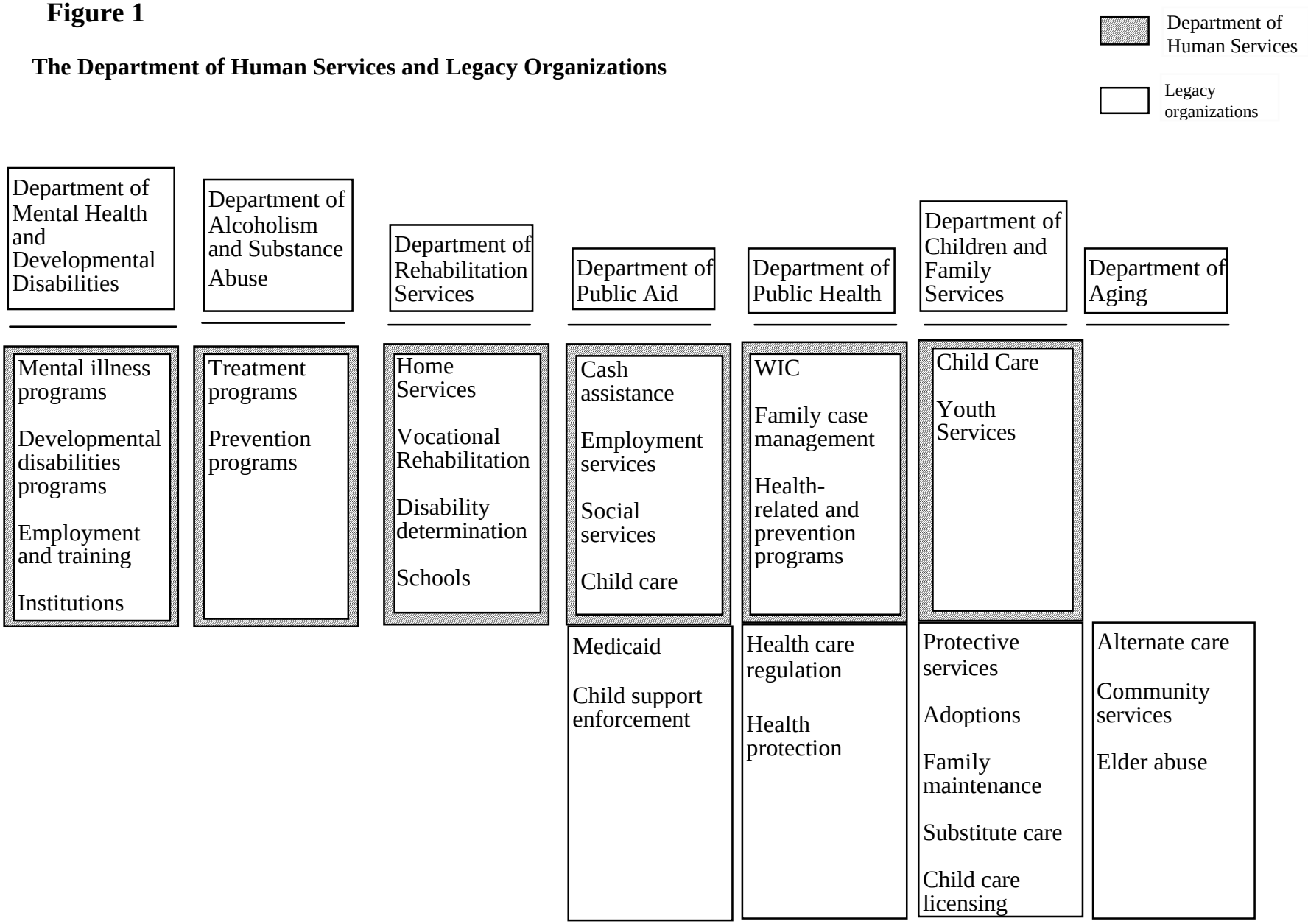
[2]. Over the last 10 years, Chapin Hall researchers have developed a unique research tool--the Integrated Database on Children's Services in Illinois (IDB). The IDB is a state-level longitudinal database constructed from administrative databases routinely maintained by the state's major child-serving agencies. Developed with the consent and cooperation of Illinois human service agencies, the IDB contains individual-level data on all child protection and child welfare services, mental health, and public aid services provided to Illinois children and families for periods of up to 17 years (Goerge, Lee, & Van Voorhis 1994).

[3]. Due to data accessibility, DPA and WIC services are measured Jan. 1994 - Jan. 1996 only, and DASA services are measured July 1993 - Jan. 1996 only. All other services are measured across the full Jan. 1990 - Jan. 1996 period.

[4]. We are assuming that there is no variation in the rate of reporting or level of accuracy of reporting of service use across all communities. Further research is needed to ensure that this is a correct

**Figure 1**

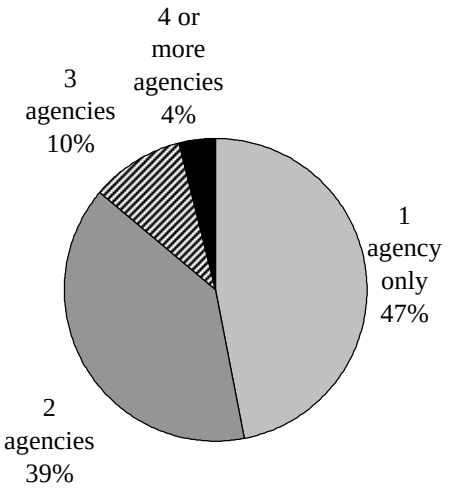
**The Department of Human Services and Legacy Organizations**



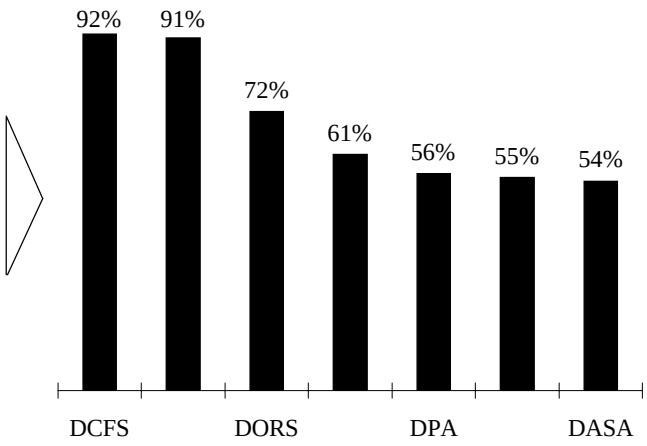

Source: Illinois Dept. of Human Services. (January 1997). Designing the department of human services. Unpublished report of the legislative task force on human services reform.

## Figure 2

**Retrospective Multiple Agency Use Among January 1996 Human Service Cases:** 100%=913,000 unduplicated cases (1.8 million individuals)




**Retrospective Multiservice Use by Agency: SPercent of Agency Clients Receiving Services at Least One Additional Agency Over Time[1]**

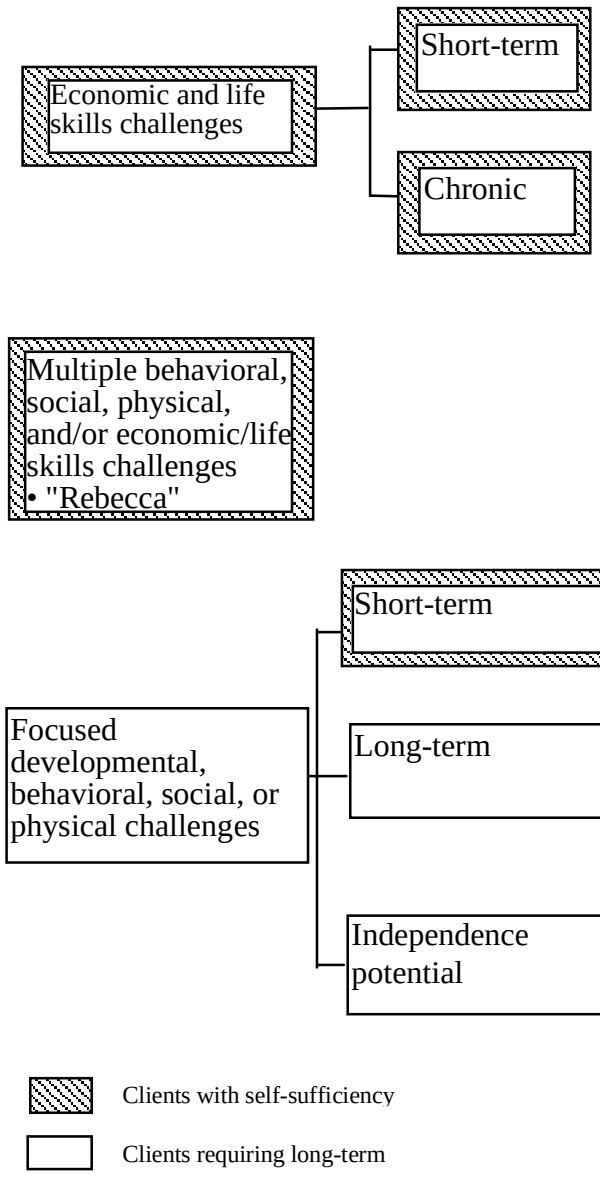



[1]Based on retrospective analysis of clients in 36 major programs across the 7 existing human serv Jan. 1990 - Jan. 1996; due to data accessibility, DPA and WIC services are measured Jan. 1994 - and DASA services are measured July 1993 - Jan. 1996 only.

DCFS: Department of Children and Family Services; DPH: Department of Public Health; DORS: Rehabilitation Services; DMHDD: Department of Mental Health and Developmental Disabilities; of Public Aid; DOA: Department of Aging; DASA: Department of Alcoholism and Substance Ab

Source: Illinois Dept. of Human Services. (January 1997). Designing the department of human se report of the legislative task force on human services reform.

**Figure 3**
**Client Segments**




**Explanation**

• Economic/life skills challenges of minimal severity
• Likely self-sufficient in 2 years

• Economic/life skills challenges of some severity
• At least temporary self-sufficiency likely, although may not be able to resolve permanency

• Behavioral, social, and/or physical challenges that involve multiple categorical specialties or are coupled with economic/life skills challenges
• Self-sufficiency is possible only after intensive clinical or technical services and may require ongoing support

• One behavioral, social, or physical challenge which is clearly defined and limited in categorical scope
• Self-sufficiency likely within 2 years

• One severe developmental, behavioral, social, or physical problem overwhelming other issues
• Likely to require lifelong sustaining support to achieve maximum independence and quality of life

• One development, behavioral, social, or physical problem that is moderate and narrow in scope
• Likely to require lifelong sustaining support in order to achieve maximum indepencence and maintain quality of life

Source: Illinois Dept. of Human Services. (January 1997). Designing the department of human services. Unpublished report of the legislative task force on human services reform.

figure 4 Chart 6

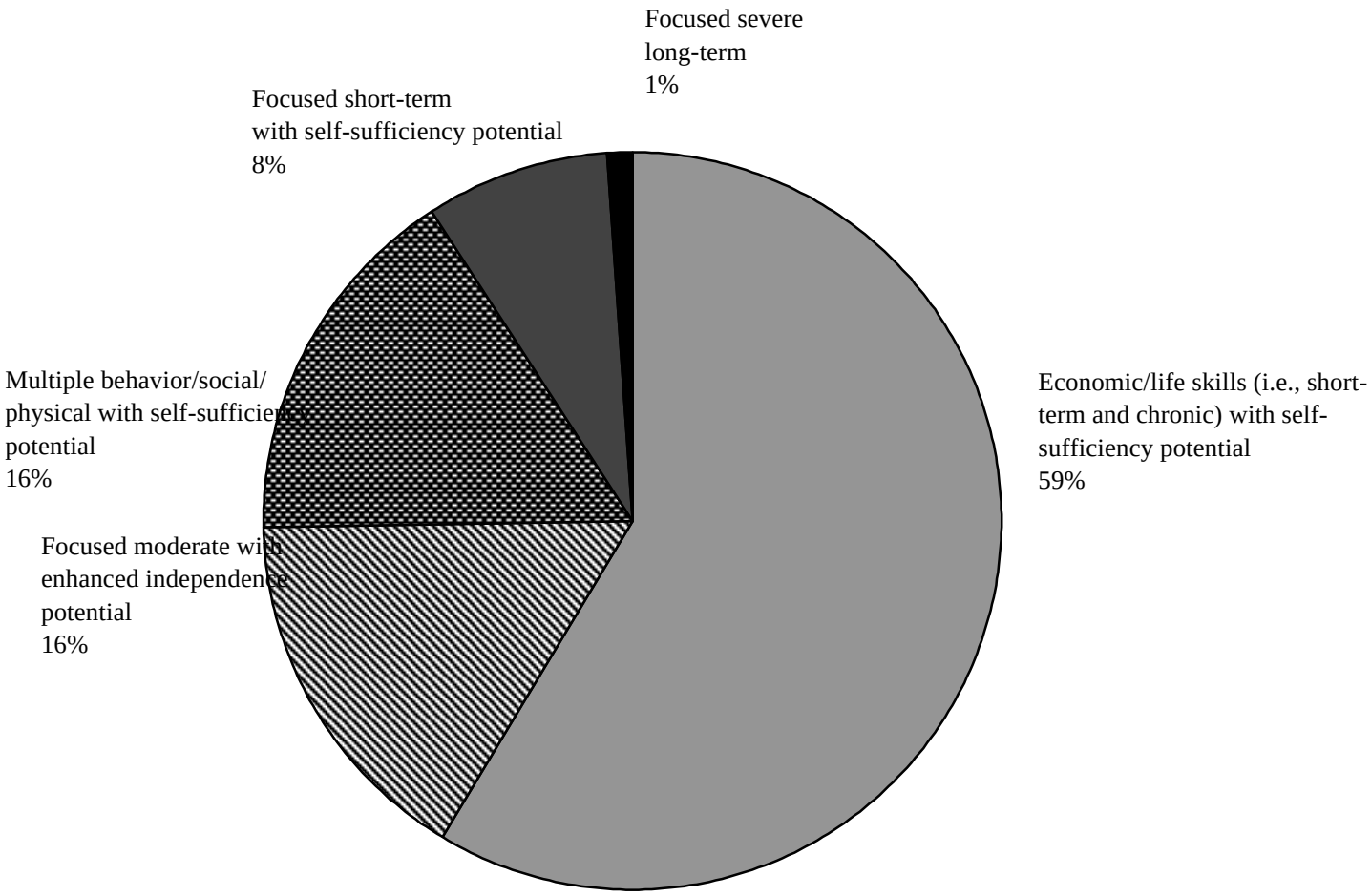


**TABLE 1: RETROSPECTIVE PROGRAM USE AMONG AFDC CASES ACROSS FOUR COMMUNITI**

**January 1990 to 1996[1]**

| AGENCY | PROGRAM/REPORT | Community 1 | Community 2 | Community 3 | Community 4 |
|---|---|---|---|---|---|
| Public Aid | Job Opportunities and Basic Skills (JOB | 30.1 | 14.4 | 16.6 | 31.2 |
| | Subsidized Direct Pay Child Care | 29.2 | 12.8 | 11.9 | 20.6 |
| Rehabilitative Services | Vocational Rehabilitation | 8.8 | 4.9 | 6.2 | 14.6 |
| | Home Services | 1.3 | 0.5 | 0.6 | 2.1 |
| Public Health | Family Case Management[2] | 54.0 | 25.1 | 62.6 | 51.9 |
| Mental Health and Developm Disabilities | State-Operated Mental Health Centers | 3.1 | 1.4 | 1.7 | 3.3 |
| | Mental Health Outpatient Services | 27.3 | 13.8 | 7.8 | 18.2 |
| Alcohol and Substance Abuse | Residential Services | 9.4 | 2.2 | 8.0 | 8.4 |
| | Outpatients Services | 13.5 | 5.0 | 10.3 | 11.2 |
| Dept. of Children and Family Services[3] | Children with an Indicated Allegation of Abuse or Neglect | 24.3 | 15.6 | 19.8 | 15.2 |
| | Adult Perpetrators Investigated for an Indicated Allegation of Abuse or Neg | 23.3 | 15.1 | 19.1 | 14.5 |
| | Case with any Child in Out of Home Pla | 11.8 | 5.0 | 7.9 | 8.1 |
| | Case with Intact Open Family Case | 24.4 | 12.3 | 13.4 | 18.5 |

[1] Based on retrospective analysis of clinets in 36 major programs across the 7 existing human services agencies from January 1990 data accessibility, DPA and WIC services are measured January 1994 through January 1996 only and DASA services are measure January 1996 only.

[2] These figures only include Famiy Case Management data for non-Chicago locations and, therefore, vary significantly across com

[3] These DCFS statuses are not mutually exclusive; a case may have any and all combinations of these events