

**A ROAD OFT TAKEN:**  
**Unaffordable Home Energy Bills, Forced Mobility**  
**And Childhood Education in Missouri**

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## ABSTRACT

This study explores the interconnection between two seemingly unrelated problems: unaffordable home energy bills and poor educational attainment. The study goes beyond the self-evident observation that if hungry children make bad students, cold children would make bad students as well. Instead, the study focuses on the well-documented relationship between frequent household mobility and poor educational attainment. Looking specifically at a group of low-income households in Missouri, the study evaluates to what extent, if at all, unaffordable home energy bills contribute to frequent household mobility and, therefore, by extension, to the educational problems facing students in those households.

Findings include that a substantial portion of the low-income population is "frequently mobile" over a five year period; that one primary cause of this frequent mobility is the unaffordability of home energy bills, including home heating and electricity; and that the frequent mobility creates problems both for the students in these mobile households and for the teachers and schools who seek to educate those students.

Public policy implications from this data are at least two-fold. First, appropriate public policy, the study concludes, should concentrate on breaking the causal chain which gives rise to the educational problems in the first place rather than seeking only to redress the problems once they occur. Second, funding decisions which pit education against winter heating assistance at the federal level present a false choice. In fact, both education assistance and winter heating assistance have education ramifications and increasing education funding at the expense of fuel assistance may ultimately prove to be counter-productive from an educational perspective.

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## INTRODUCTION

In recent years, increasing national attention has been focused on education. A 1989 education summit attended by then-President Bush and the nation's governors set six educational goals to be achieved by the nation by the year 2000. The goals aim at: (1) ensuring that every child starts school ready to learn; (2) increasing the high school graduation rate to at least 90 percent; (3) assuring that students demonstrate competency in academic subjects; (4) becoming first in the world in mathematics and science; (5) achieving universal adult literacy; and (6) creating drug- and violence-free schools.

Low-income children, however, are less likely to reach these educational goals. Poor children, for example, are less likely to enter school as well prepared as their more wealthy counterparts. The National Center for Children in Poverty (NCCP) notes that low-income children who attend prekindergarten adjust to school better and have higher levels of achievement.<sup>1</sup> Nonetheless,

in 1986, 50 percent of three-year-olds and 67 percent of four-year-olds from families with incomes of \$35,000 or more received preschool education, while only 16 percent of three-year olds and 38 percent of four-year olds from families with incomes under

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<sup>1</sup> National Center for Children In Poverty. (1990). *Five Million Children: A Statistical Profile of Our Poorest Young Citizens*, New York, NY: Columbia University, School of Public Health.

\$10,000 were enrolled.<sup>2</sup>

The challenges facing our school systems are not only great, but are becoming greater. A recent report by the U.S. General Accounting Office (GAO) noted that "many of our schools will have to work harder to meet the special needs of a changing population, while at the same time striving to set higher standards and meet the national education goals."<sup>3</sup> As GAO noted, during the 1980s, the number of poor school-age children<sup>4</sup> increased by over 400,000 to 7.6 million, even as the *total* school-age population declined by 2.3 million. The national school-age poverty rate increased from 15.3 percent in 1980 to 17.1 percent in 1990, and has continued to climb since.

The problem of poverty and schooling is nationwide. While seven of the ten cities with the highest 1990 school-age poverty rates were in the East and South, and eight of the ten states with the highest school-age poverty rates were in the South, 11 of the 12 states with the greatest *growth* in the number of poor school-age children were located in the West and Southwest.<sup>5</sup> Moreover, while much attention is focused on the educational needs of the urban poor, nearly one-quarter of all poor school-age children in the country live in rural areas.<sup>6</sup>

According to GAO:

These patterns have profound implications for our nation's schools and education policy. Policymakers and school officials will have to assist all children, including those who are poor and at risk, to meet higher education standards. Providing such assistance will be costly and difficult in a time of tight budgets. Ignoring these needs now, however, could cause great problems, and imperil our nation's future.<sup>7</sup>

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<sup>2</sup> Children's Defense Fund. (1990). ***S.O.S. America: A Children's Defense Budget***, Washington D.C., cited in, Helen Brown (1991). ***Concern for Younger Generations: The Educationally At Risk***, at 3, American Association of Retired Persons Public Policy Institute: Washington D.C.

<sup>3</sup> U.S. General Accounting Office (1994). ***School-Age Children: Poverty and Diversity Challenge Schools Nationwide***, Washington D.C. (hereinafter ***Poverty and Diversity***).

<sup>4</sup> Aged 5 through 17.

<sup>5</sup> ***Poverty and Diversity***, *supra*, at 7.

<sup>6</sup> See generally, U.S. General Accounting Office (1994). ***Rural Children: Increasing Poverty Rates Pose Educational Challenges***, Washington D.C. (hereinafter ***Rural Children***).

<sup>7</sup> ***Poverty and Diversity***, *supra*, at i.

GAO finally warned that policymakers and school officials will have to develop new strategies to assist poor and at-risk children to achieve at the high levels that will be demanded by the new education standards. GAO specifically cited the need to "develop new ways to address the educational disruption experienced by children who change schools frequently. . ."<sup>8</sup>

### *Overview of the Study*

This study focuses on this last group of children, those who move frequently. The study looks at low-income children, education, and the forced mobility caused by unaffordable energy bills. The analysis posits that rather than developing education programs to address what GAO refers to as "the educational disruption experienced by children who change schools frequently," it would be far better to address the factors which cause the mobility in the first instance. If low-income households can be stabilized in their existing homes, in other words, perhaps some of the "educational disruption" can be *prevented*, rather than being "addressed."

No question exists but that unaffordable home energy bills may have direct consequences on a low-income household.<sup>9</sup> Unaffordable bills may result in household arrears, as well as efforts by the household to keep bills lower by keeping homes unreasonably cold (or by keeping only a limited number of rooms heated). Unaffordable bills may result in households choosing to pay limited income toward utility arrears rather than buying food to provide adequate nutrition. Unaffordable bills may ultimately lead to the involuntary disconnection of service due to nonpayment.

In addition to these direct impacts, however, unaffordable energy bills have *indirect* impacts as well.

One such impact is the forced mobility of households. "Forced mobility" occurs when households are required to change residences, either inside or outside a utility's service territory, in response to [unaffordable] service. This mobility may occur because the current residence is rendered uninhabitable due to the lack of utility service. It may occur because the household has insufficient funds to reasonably expect that its arrears to a particular utility will ever be retired. It may occur as the household seeks shelter

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<sup>8</sup> *Poverty and Diversity, supra*, at 12.

<sup>9</sup> See generally, Michael Sheehan (1994). *On the Brink of Disaster: A State-by-State Analysis of Low-Income Winter Home Heating Bills*, at 53, Fisher, Sheehan & Colton, Public Finance and General Economics: Scappoose, OR.; see also, Roger Colton (1994). *The Other Part of the Year: Low-Income Households and their Need for Cooling: A State-by-State Analysis of Low-Income Summer Electric Bills*, Fisher, Sheehan & Colton, Public Finance and General Economics: Belmont, MA.

with more affordable energy costs.<sup>10</sup>

Increasing the affordability of home energy bills, therefore, would be one effective means of stabilizing the residency of low-income households and thus improving the educational attainment of low-income students. Rather than addressing the *symptom* of the problem by committing ever-increasing dollars to the education system, public policy would be well-served by seeking to break the circle of causation that leads to the mobility, and thus the education problem in the first instance.

Accordingly, the following analysis is presented in four parts. *Part 1* reviews the existing research on the connection between household mobility and poor educational attainment. *Part 2* presents a discussion of the methodology employed and the population examined in this study. *Part 3* evaluates primary data from low-income Missouri households with pre-school children regarding the frequency of forced household mobility and the contribution which unaffordable home energy bills make toward that forced mobility. Finally, *Part 4* reaches conclusions and makes recommendations.

### ***The Importance of the Study***

The problems of a lack of adequate education are, not surprisingly, immense. According to GAO, for example, low-income children are more likely than others to experience academic failure. ". . .the consequences of this failure follow them for their whole lives. These children are more likely to drop out of school, for example, and high school dropouts are more likely than high school graduates to be arrested and to become unmarried parents."<sup>11</sup>

Moreover, in 1987, one business group warned that without providing a quality education, "our industries will be unable to grow and compete because an expanding educational underclass will be unable to meet the demands" of "dramatic and irreversible changes in the job market."<sup>12</sup> Moreover, that group noted, youth who drop out of school are "virtually unemployable" and each annual class of dropouts loses, in current dollars, about \$237 billion in lifetime earnings. Reducing the dropout rate would not only increase these individuals' incomes, but would boost government tax revenues from that income by up to \$70 billion.<sup>13</sup>

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<sup>10</sup> Roger Colton (1991). ***The Forced Mobility of Low-Income Households: The Indirect Impacts of Shutoffs on Utilities and Their Customers***, National Consumer Law Center: Boston.

<sup>11</sup> ***Poverty and Diversity***, *supra*, at 2.

<sup>12</sup> Committee for Economic Development (1987). ***Children in Need: Investment Strategies for the Educational Disadvantaged***, New York.

<sup>13</sup> Committee for Economic Development (1991). ***The Unfinished Agenda: A New Vision for Child Development***

The lack of job preparation through schooling will have longer-term financial implications as well. A younger generation, a significant proportion of which lacks adequate skills for stable employment, the American Association of Retired Persons (AARP) reports, cannot support a retired population that is growing more rapidly than the labor force.<sup>14</sup> While in 1950, AARP noted, 17 workers supported each retiree, by the end of the 1990s, only three workers will be supporting each person receiving Social Security benefits. "The economic strength of the Social Security system depends on the productivity of those three workers. This requires that each has the skills necessary to function in an increasingly technological workplace."<sup>15</sup>

In sum, what we know as we begin this study includes several things. We know that low-income students perform more poorly than higher-income students do. We know that education is critical to the long-term welfare of the student, the economy, and the community. And we know that the education system is today faced with the dual challenge of raising educational achievement while at the same time addressing the increasing needs created by increasing numbers of poverty-level school age kids.

In light of this knowledge, we next turn, therefore, to one particular sector of this challenge: how to address what GAO called "the educational disruption experienced by children who move frequently." First we look at the connection between education and frequent mobility. Next we look behind the issue, not merely at *whether* households are frequent movers, but rather at *why* households are frequent movers as well.

## POVERTY, MOBILITY AND CHILDHOOD EDUCATION

The composition of school-age America has substantial implications for schools with high concentrations of poor children, research shows. Schools with large numbers of poor children have a disproportionately higher share of low achievers than schools with fewer children in poverty.<sup>16</sup> One study recently reported that children in high-poverty schools are more likely to have been retained in grade at some time during their school career and to have higher rates of absenteeism.<sup>17</sup> Teachers in

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*and Education*, New York.

<sup>14</sup> *American Association of Retired Persons*, *supra*, at 3.

<sup>15</sup> *Id.* at 4.

<sup>16</sup> See, U.S. General Accounting Office (1992). *Remedial Education: Modifying Chapter 1 Formula Would Target Funds to Those Most in Need*, Washington D.C.

<sup>17</sup> U.S. Department of Education (1993). *Prospects: The Congressionally Mandated Study of Educational Growth and Opportunity, the Interim Report*, Washington D.C.

schools with high poverty rates report that their students have difficulties that may affect their ability to perform in school, including health-hygiene problems and inadequate nutrition or rest.<sup>18</sup>

One particular reason for this poor performance is the frequent mobility of low-income households. According to one study:

elementary school children who move frequently face disruption to their lives, including their schooling. And, sadly, these children are often not helped to adjust to the disruption of a new school--new children, teachers, and principal--and to make sense of the variations in curriculum between the old school and the new.<sup>19</sup>

Unless policymakers focus greater attention on the needs of children who changed schools frequently, one study found, "these children may continue to be low achieving in math and reading, as well as to repeat a grade."<sup>20</sup>

Unfortunately, this mobility tends to be a low-income phenomenon. Children who are from low-income families or attend inner city schools are more likely than others to have changed schools frequently. Overall, about 17 percent of all third-graders--more than a half million--have changed schools frequently.<sup>21</sup> In contrast, of third-graders in low-income families,<sup>22</sup> 30 percent have changed schools frequently, compared with about 10 percent from families with incomes of \$25,000 and above.

The educational impacts of this frequent mobility are dramatic. Overall, "third-graders who have changed schools frequently are two-and-a-half times as likely to repeat a grade as third-graders who have never changed schools (20 percent versus 8 percent). Children who have changed schools frequently, compared with children who have never changed schools, are more than twice as likely to have nutrition and health or hygiene problems, according to teachers.<sup>23</sup> In general:

Of the nation's third-graders who have changed schools frequently, 41 percent are low

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<sup>18</sup> *Poverty and Diversity, supra*, at 11.

<sup>19</sup> U.S. General Accounting Office (1994). *Elementary School Children: Many Change Schools Frequently, Harming Their Education*, Washington D.C.

<sup>20</sup> *Id.*, at 2.

<sup>21</sup> GAO defined frequent mobility as a third grader who has changed schools three or more times since first grade.

<sup>22</sup> GAO defined "low-income" as having an annual income at or below \$10,000.

<sup>23</sup> *Id.*, at 8.

achievers, that is, below grade level, in reading, compared with 26 percent of third-graders who have never changed schools. Results are similar for math--33 percent of children who have changed schools frequently are below grade level, compared with 17 percent of those who have never changed schools. . Children who have moved often were also more likely to have behavioral problems, according to a recent study.<sup>24</sup>

Finally, when children changed schools four or more times, they are more likely to drop out of school. Children who changed schools four or more time by eighth grade were at least four times more likely to drop out than those who remained in the same school.<sup>25</sup>

### *Some of the Reasons for Educational Difficulties*

The educational difficulties of children who move frequently do not necessarily reside with the student alone, but instead may arise because of the way in which the schools treat such students. Ample research has found that highly mobile students pose problems to the school systems as well.

High numbers of mobile children, school officials have reported, can interfere with teachers' ability to organize and deliver instruction. While the mobility of children is often a reflection of underlying family issues, such as shortages of affordable housing, changes in marital status, or unemployment, it is the schools that must face the difficult challenge of meeting the educational needs of children who change schools frequently. Teachers may find it difficult to assess the needs of such new children, determine their past education experiences, and provide instruction that builds on these experiences. These tasks may be especially difficult when many new children enter the classroom throughout the year, often with no advance notice. Children may be exposed to curriculums that vary greatly across schools and districts; therefore, if they move from one school to another in the middle of the school year, they may have difficulty catching up in all subjects by the end of the school year.<sup>26</sup>

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<sup>24</sup> *Id.*, at 6, *citing*, David Wood *et al*, "Impact of Family Relocation on Children's Growth, Development, School Function, and Behavior," ***Journal of the American Medical Association*** (Sept. 15, 1993), pp. 1334 - 38.

<sup>25</sup> *Id.*, at 8, *citing*, MPR Associates, "Characteristics of At-Risk Students in NELS-88," conducted for the National Center for Education Statistics, Office of Educational Research and Improvement, Department of Education, NCS 92-042 (Aug. 1992), p. 15; *see also*, Ridge Hammons and Miles Olson, "Interschool Transfer and Dropout: Some Findings and Suggestions," ***National Association of Secondary School Principals Bulletin*** (Sept. 1988), at p. 136.

<sup>26</sup> *Id.* at 2.



In addition:

It may be difficult for teachers to focus on the needs of these children, particularly those who enter after school has started, rather than on maintaining continuity for the rest of the class. When children enter classrooms after the beginning of the year, teachers may prejudge them unfavorably. Teachers in schools with high proportions of children who change schools after the beginning of the year indicated that these school changes disrupt classroom instruction, and teachers must spend additional time on non-instructional tasks. Teachers may therefore not have the time to identify gaps in such a child's knowledge; moreover, these gaps may grow as the child is left on his or her own to make sense of the new curriculum and its relation to the one at the previous school.<sup>27</sup>

In sum, overall, it seems clear that frequent household mobility affects student education in two ways. First, it affects the students themselves. Frequent mobility creates dramatic disruption in the lives of children: new schools, new children, new teachers. In addition, however, the frequent mobility affects the institutions charged with providing an education to these students. Teachers find it difficult to assess the needs of these students. Teachers find it difficult to identify the gaps in the knowledge of these students. Teachers find it difficult to make the current curriculum fit with the previous curriculum(s) of the frequently mobile students.

Given these education problems, we turn next *not* to a discussion of the remedies of the problems, but rather to a further discussion of the *causes* of the problem. Perhaps, in other words, it would be both more effective and more efficient to stabilize the residence of the students, thereby decreasing their mobility, rather than trying to develop new programs to address the schooling problems which arise because of their frequent mobility. It is this proposition which we now examine.

## THE METHODOLOGY

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*Id.* at 9, *citing*, Joan Newman, "What Should We Do About the Highly Mobile Student," **Research Brief** (Mount Vernon, Wash: Educational School district 189, 1988); *see also*, Carl Seewell, **The Impact of Pupil Mobility on the Assessment of Achievement and Its Implications for Program Planning**, Brooklyn NY: Community School District 17, 1982); Andrea Lash and Sandra Kirkpatrick, "A Classroom Perspective on Student Mobility," **The Elementary School Journal** (Nov. 1990), pp. 177 - 91; "Highly Mobile Students: Educational Problems and Possible Solutions," **ERIC Clearinghouse on Urban Education**, New York, NY (June 1991).

This study looks at a non-random sample of families participating in the Head Start program in Missouri. Surveys were distributed to local Head Start programs through the state association of Head Start directors. Surveys were administered by Head Start personnel at the time of the family interview at the beginning of the 1994 - 1995 school year. Surveys were obtained for primarily rural areas, excluding the metropolitan areas of St. Louis and Kansas City. Every region of the state is represented in the survey results except for the far southeast corner.

For purposes of this study, a household exhibiting "frequent mobility" was defined as a household who had met any one of three criteria: (1) they had moved more than once in the previous 12 months; (2) they had moved more than once in the previous two years; or (3) they had moved three or more times in the previous five years.

In general, the broad intent of this study is to further evaluate the place of unaffordable energy bills in the "whole" of poverty. It seeks to expand on the pattern that poverty begets consequences (*i.e.*, unaffordable energy bills), which beget further consequences (*i.e.*, forced mobility), which begets further consequences (*i.e.*, poor educational attainment), which begets further poverty.

More specifically, the study examines whether, given the relationship between mobility and educational attainment, there is a further relationship which could be revealed (between unaffordable energy bills and mobility) which, if addressed, could help prevent the mobility in the first instance. Having assessed these relationships, public policymakers and others could then direct attention to the issue of whether it is better to address those factors which cause mobility, and thus stabilize the household's residence, rather than simply seeking to address the adverse consequences of the mobility once it occurs.

#### THE DATA FROM LOW-INCOME MISSOURI HOUSEHOLDS

The problem of how poverty affects school-age children is as prevalent in Missouri as it is in the rest of the nation. Missouri mirrors the national school-age poverty data. While the number of total school-age children decreased by 6.5 percent from 1980 to 1990,<sup>28</sup> and the number of rural school-age children decreased by 4.8 percent,<sup>29</sup> the number of *poor* school-age children *increased* by 8.0 percent,<sup>30</sup> and the number of poor rural school-age children increased by 9.7 percent.<sup>31</sup> Overall, Missouri's rural

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<sup>28</sup> From 992,900 in 1980 to 928,061 in 1990. **Rural Children, supra**, at 55.

<sup>29</sup> From 338,619 in 1980 to 322,425 in 1990. **Rural Children, supra**, at 55.

<sup>30</sup> From 139,765 in 1980 to 150,951 in 1990. **Rural Children, supra**, at 57.

<sup>31</sup> From 61,483 in 1980 to 67,446 in 1990. **Rural Children, supra**, at 57.

school-age poverty rate in 1990 was 20.9 percent, 16th highest in the country.<sup>32</sup>

### ***The Extent of Frequent Mobility in Missouri***

This study examines 813 families participating in the Missouri Head Start program. Of those 813 families,<sup>33</sup> nearly two-fifths (296/813=36.4%) were "frequently mobile" as defined above. The mobility problem was severe. Of the 296 frequently mobile households, 259 had moved three or more times in the past five years, while only 37 had moved two or more times in the past two years.<sup>34</sup> Table 1 summarizes the mobility of the frequent movers during the five year span. These 259 households represent 31.9 percent of the total population studied.

Number of Moves in Last 5 Years	No. Hhs
3	76
4	62
5	39
6	22
7 - 9	41
10+	19
TOTAL	259

This frequent mover population represents more than 500 children, or more than two kids per family.<sup>35</sup>

<sup>32</sup> *Rural Children, supra*, at 51.

<sup>33</sup> No distinction is made between a "family" and a "household" in this report. For purposes of this discussion, the words are coterminous.

<sup>34</sup> 18 moved two or more in the past year; 19 had moved two or more times in the past two years. Because of the small contribution which these households make to the total, they will be set aside for the remainder of this analysis. Only households with three or more moves in the past five years will be studied.

<sup>35</sup> Only 233 households provided information regarding household size.

Moreover, this population is extremely poor. A distribution of the households by Poverty Level is set forth below in Table 2.<sup>36</sup> Forty-five percent (101 of 222) of this population lives at or below 50 percent of Poverty. Nearly three-fourths (192 of 222 or 73 percent) live at or below 100 percent of Poverty.

Table 2: Missouri Head Start 5-Year Frequent Mover Population Ratio of Income to Federal Poverty Level	
Ratio of Income to Poverty Level	No. of Households
0 - 25 percent	17
26 - 50 percent	84
51 - 75 percent	50
76 - 100 percent	41
101 - 150 percent	21
151 - 200 percent	9
TOTAL	222

The mobility engaged in by this population of households is not only "frequent," but is consistent over time. While 100 of the 259 households reported that they had not moved at all within the past 12 months, only 50 had reported that they had not moved at all within the past 24 months. Moreover, 78 of these 259 five year frequent mover households (30 percent) reported that they intended to move again within the *next* 12 months. As is evident, these households do not experience relatively long periods of stability, marked by episodes of frequent mobility. Their mobility is, instead, an ongoing fact-of-life.<sup>37</sup>

The *fact* of frequent low-income mobility is not surprising. What this study seeks to examine, however, are the *reasons* behind this frequent mobility.

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<sup>36</sup> The Table is limited by those who reported both income and household size (n=222).

<sup>37</sup> When asked how many times she had moved within the past five years, one householder responded "don't even ask." Another householder, when faced with the same question, responded "too many times to count."

*The Causes of the Mobility*

Home energy bills in Missouri are largely unaffordable to the low-income population of Missouri. One recent study found, for example, that recipients of Aid to Families with Dependent Children (AFDC) in Missouri paid, on average, almost 25 percent of their income toward winter heating bills.<sup>38</sup> The problem is statewide. Depending on the company and location in the state, public assistance recipients in Missouri<sup>39</sup> paid from 25 to 37 percent of their income for their winter home heating bills in the winter of 1990 - 1991.<sup>40</sup>

Table 3: Winter Natural Gas Home Heating Bill as Percent of Income for Public Assistance Recipients in Largest Community Served with Gas by Missouri Utilities (1990 - 1991)		
Company	Largest City Served	Bill as Income Pct
Associated Natural Gas	Kirksville	24.2%
Kansas Power & Light	Kansas City	24.5%
LaClede Gas Company	St. Louis	24.6%
Missouri Public Service	Sedalia	33.7%
Union Electric	Jefferson City	35.4%
United Cities Gas	Hannibal	36.8%

These unaffordable home energy bills represent a substantial cause of the frequent mobility amongst Missouri's low-income school age children. Of the 231 five year frequent mover households identified by this study, 96 (41.6 percent) listed unaffordable heating bills as a "very important" factor contributing to their most recent move; another 25 (10.8 percent) listed these bills as "somewhat

<sup>38</sup> Michael Sheehan (1994). *On the Brink of Disaster: A State-by-State Analysis of Low-Income Winter Home Heating Bills*, at Table 20, pp 158 - 159, Fisher, Sheehan & Colton, Public Finance and General Economics: Scappoose, OR.

<sup>39</sup> "Public assistance" includes more than AFDC. It includes, for example, Supplemental Security Income (SSI).

<sup>40</sup> *Id.*, at Table 21, pp 165 - 176.

important." As can be seen, therefore, of the frequent mover population, unaffordable energy bills played a role in the move in more than half of the cases.

In addition to past moves, 13 (16.7%) of the 78 five-year frequent movers who planned to move again within the next 12 months listed unaffordable heating, unaffordable electric, or unaffordable utilities as a reason for their move.

The data reveals, also, that it is, indeed, *unaffordable* energy bills and not merely the disconnection of service which contributes to the forced mobility of the low-income Missouri households. Three-fourths (71 of 96) of the low-income households who moved because of unaffordable energy bills did so notwithstanding the fact that they either had been paying their bills, or had at least not fallen so far behind as to warrant the disconnection of service.

A substantial portion of the population moving because of unaffordable energy bills did *not* have problems with other shelter costs. Of the 96 households listing unaffordable energy as a "very important" factor in their decision to move, 44 (45.8 percent) listed "unaffordable rent" as *not* being a "very important" factor in their decision. From this data, we can conclude that rent and utility affordability do not go hand-in-hand.<sup>41</sup>

As this data shows, therefore, the circle is complete. The adverse impacts of unaffordable energy bills extend well beyond the impact on households in their capacity as utility customer. To the extent that these bills contribute to substantial mobility --which they do-- the adverse impacts extend to the education of the children of Missouri and to the effective and efficient operation of the education system.

## **PUBLIC POLICY IMPLICATIONS**

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In contrast, however, only 24 (21.8 percent) of the respondents who listed unaffordable rent as a "very important" factor in their decision to move listed unaffordable utilities as being not important. The fact that households who have trouble with their rents report having trouble, also, with their utility bills, but households who have troubles with their utility bills do not necessarily have trouble with their rents lends further credence to studies examining patterns in bill payment priorities. These studies have found that low-income households tend to pay their rent/mortgage payments first, and their utility bills second, with all other consumer payments falling into a lesser priority. See generally, Roger Colton (1991). *Understanding Why Customers Don't Pay: The Need for Flexible Collection Practices*, National Consumer Law Center: Boston.

While this study will not suggest that it is the role of a public utility to undertake to solve the educational problems of its frequently mobile children, nonetheless, it is important for utilities, their planners, and regulators, to recognize the role which utilities *can* play. One common theme running throughout the discussions of frequently mobile children is the extent to which unaffordable shelter costs --including unaffordable home energy bills-- contribute to the mobility. By helping to address the unaffordable shelter costs, therefore, the resulting educational problems are being addressed at the causative stage.<sup>42</sup> It is the unaffordable shelter costs, in other words, including energy, which is a substantial contributor to the educational problems in the first place. And it is *precisely* that cause which utilities can help address.

Second, it is not unreasonable to ask an industry, which is outside the realm of directly providing educational services, to consider what that industry can do to help. Compare, for example, the efforts of one school district, Rochester, New York, where *landlords* and school officials have begun to work together to decrease the rate of mobility for elementary school children whose parents are renters by: (1) providing parents with information about how mobility is related to lower achievement; and (2) advertising apartment vacancies by elementary school attendance zones.<sup>43</sup> Like the landlords in Rochester, Missouri utilities, and their regulators, can take cognizance of the positive impacts that their low-income energy programs will have on both the educational attainment of the children, and on the efficient and effective use of the state and local tax dollars which are devoted to education.

Third, the data paints a disturbing picture of how energy bills in Missouri are unaffordable to low-income households. The data reveals, also, the extent to which these energy bills result in total housing costs being so far beyond an affordable range that households are forced to move. The data provides an insight into the extent to which school age children are affected by this box of poverty, unaffordable energy bills, and unaffordable housing costs. The discussion in this section thus makes another connection. Not only will the development of an aggressive low-income affordable energy program help address those unaffordability problems, in so doing, the utility will help the state increase both the efficiency and the effectiveness of its education expenditures as well. This, in turn, will help the utility in the future, as a utility. One means of a state and region maintaining competitiveness is to increase the effectiveness of its educational system. If one looks at the long-term, therefore, by helping to maintain the educational system, the utility is, in fact, helping to maintain the infrastructure necessary for its own long-term economic survival.

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<sup>42</sup> Indeed, it is not profound to assert that it is much more efficient, and effective, to address the problem by eliminating the cause, rather than allowing the problem to develop --that of frequent mobility-- and then trying to treat the results, *i.e.*, the adverse educational effects.

<sup>43</sup> See, D.Schuler, "Effects of Mobility on Student Achievement," *ERS Spectrum* (Fall 1990), pp 17-24.

Fourth, the data points to a need for education officials to take a more holistic approach in seeking to address, and redress, the mobility problems of low-income households. Rather than simply having a variety of remedial education programs directed toward the frequently mobile student, perhaps the education system needs to take more care in directing referrals of these households to public and private energy efficiency programs, fuel funds, winter heating assistance programs, and the like. While the effort to make such referrals may seem beyond the purview of the school system at first glance, what we learn from the study above is that poor educational attainment and unaffordable home energy may involve the same, not different, issues.

Fifth, the data supports the conclusion that federal funding decisions which place fuel assistance in competition with education programs create a false need to choose. As can be seen, federal fuel assistance is one effective means not only of preventing the disconnection of service, but of improving the affordability of home energy, stabilizing low-income residences, and improving the education of low-income students. The impacts on education occur irrespective of whether a service termination would have occurred in the absence of the fuel assistance. Moreover, the data support the conclusion that decreasing federal fuel assistance in the name of increasing educational opportunity through increased education funding may be counter-productive. Such funding priorities simply move the government's intervention point one more step down the pipeline, where the problems are more entrenched and more difficult to resolve.

Sixth, the data points to a need for reform in the delivery of fuel assistance. In the quest for better targeting to increase the efficient and effective delivery of winter home heating benefits, fuel assistance programs would be well-served to adopt a broader attitude of who beneficial partners might be. While working closely with school systems to identify those households "in need" may not traditionally have seemed to be an important priority, this study shows precisely why such a partnership should be desired. In this regard, "fuel assistance" programs would include not only government cash benefit programs, but affordable rate programs offered by utilities, as well as programs providing investments in energy efficiency by utilities, government agencies, and others.

Seventh, the data confirms again the need to have a total community response to the causes and consequences of poverty. A diverse portfolio of unrelated programs may give the appearance of being "comprehensive," while what is really needed is a program directed toward the interrelationships of causes and consequences. Schools should be working with utilities should be working with property owners if a community hopes to reduce the contributors to poverty rather than simply seeking to address the manifestations.