

# The Center for State Child Welfare Data

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## Within and Between State Variation in the Use of Congregate Care

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# Executive Summary

## The context

Despite the mandate to place children in the least restrictive setting possible, the practice of placing children in group and other forms of congregate care persists in most places around the country. Research has illuminated the potentially negative effects of congregate care, especially for young children; at the same time, residential care has its place on the placement continuum. The question is what can be done, from a policy perspective, to ensure that group care is used for the children and youth who need it most. Although the current discourse suggests the use of congregate care exceeds what is necessary, there are few arguments put forward that suggest the true demand for congregate care is zero. If that is indeed the case – that the true demand for congregate care is below current utilization but not zero – then we are well served if we understand more clearly how much congregate care is used, where it is used and with whom, and then use those patterns to guide policy, practice, and resource allocation.

## The question

To explore patterns in congregate care use, we ask two sets of research questions. First, how does the likelihood of placement in congregate care vary from state to state and from county to county? Second, given that group care use varies so widely from place to place, what factors predict placement in non-family setting? Specifically, how do child characteristics and ecological factors interact to produce trends in congregate care placement?

## The analysis

Data for this study come from the Multistate Foster Care Data Archive (FCDA)—a longitudinal archive containing the foster care records of approximately 3 million children nationwide. We begin by using the FCDA to illustrate how congregate care use varies among states and counties. Then, using a subset of children from 961 counties in 14 states, we use multilevel modeling techniques to examine how child characteristics (age, gender, and race/ethnicity) and county attributes (urbanicity and socioeconomic disadvantage) interact to influence the likelihood that a child in foster care will be placed in a non-family setting.

## The findings

Nationally, about 20 percent of children in foster care experience a congregate care placement at some point during their time in care; however, reliance on group care varies widely, both between and within states. At the state level, the likelihood that a child will enter foster care directly to a congregate care setting ranges from four to 44 percent. Variation exists within states, as well. We observed counties that use very little congregate care and counties where nearly nine out of ten children entering out-of-home care were placed in a non-family setting.

Univariate analyses show that certain child and county characteristics are associated with an increased likelihood placement in congregate care. Teenagers are more likely to enter a group setting than younger children, males are more likely than females, and African Americans more likely than children from other racial/ethnic backgrounds. Urban counties use more congregate care than non-urban counties. Economically disadvantaged counties are less likely to place children in group care than areas classified as better off. The multilevel model, however, reveals a more complex pattern. Specifically, when we account for the effects of urbanicity and county socioeconomic character, the direct effect of race on congregate care placement

reflects the fact that African American children live predominantly in urban areas. In other words, while it is true that African American children are more likely to experience group care, that trend appears to be a function of the fact that they are more likely to live in cities.

## **The implications**

This research adds an important perspective to conversations regarding the allocation of congregate care resources as it raises questions about how system dynamics shape agencies' ability to match the supply of congregate care to its true demand. We know that urban areas are more likely to use group care than non-urban areas, but we know little about how, given that context, local child welfare agencies use policy to organize their efforts to reserve high-end care for only those who need it.

Generally speaking, policies that strive to reduce the unnecessary use of congregate care target case-level decisions. Although children will certainly benefit from better assessment and level-of-care assignments, our research suggests that it will take more than clinical and casework improvements to ensure children's placement in the least restrictive environment. For one, agencies will need to appreciate the economics of how group care is distributed throughout the state. For instance, lower rates of residential placement in non-urban areas could be a function of the fact that the real demand for group care, whatever that might be, is too small to maintain a diverse supply of beds. Where that is the case, it may be that young people who would otherwise benefit from a placement in a residential setting are in effect denied that benefit on the basis of supply. As states endeavor to address dynamics like these in their own jurisdictions, future research should aim to shed light on which combinations of state and local policies promote responsive congregate care use in the face of both clinical need and systemic pressures.

## Introduction

Each year, state child welfare agencies investigate roughly 3 million reports of child maltreatment. Of those reports, just under 700 thousand are substantiated (U S Department of Health and Human Services Administration on Children Youth and Families Children's Bureau, 2013). Treating abused and neglected children costs federal, state, and local governments about \$29.4 billion dollars each year (DeVooght, Fletcher, Vaughn, & Cooper, 2012). Given that children entering out-of-care are often behind their peers on a wide range of developmental indicators, the true cost of caring for abused and neglected children over their lifetime is much, much higher.

The services available to abused and neglected children are an admixture of in-home and out-of-home services, if services are in fact provided. About 61 percent of maltreatment victims receive services (U S Department of Health and Human Services Administration on Children Youth and Families Children's Bureau, 2013). When children are referred for services, in-home services include parenting classes, homemaker services, counseling, and other supports designed to improve the parents' ability to raise their children safely.

When the safety risks to the child are too great, public officials resort to out-of-home care—otherwise known as foster care—a course of action that involves locating another home for the child, at least temporarily. Foster care settings range from family-based foster care and relative/kinship foster care to group homes and residential centers. Placement occurs in about 30 percent of the cases that are substantiated (U S Department of Health and Human Services Administration on Children Youth and Families Children's Bureau, 2013), a figure that translates into roughly 250,000 admissions annually (U S Department of Health and Human Services Administration on Children Youth and Families Children's Bureau, 2014). Notwithstanding the large number of children who are left without any services at all, public policy favors in-home services so that a child's family life is not disrupted. When that is not possible, public policy favors placement of children in the most *family-like setting*, given the needs of the child. That said, for some age groups, congregate care accounts for more than half of all placements into out-of-home care. In some jurisdictions, the likelihood a teenager will be placed in a group or residential setting is as high as 80 percent. Even among infants, placement in a group setting is surprisingly common. While doing background research for this study, we found that four percent of the infants admitted spent their first night of foster care in some sort of congregate care setting.

For younger children, particularly those under the age of 1, there is little if any developmental research that supports the use of group care as an alternative to a single, primary set of caregivers (Dozier, Stoval, Albus, & Bates, 2001; Dozier, Zeanah, Wallin, & Shauffer, 2012).<sup>1</sup> Even placement with strangers in a family setting has the potential for significant iatrogenic effects when very young children are involved (Berrick, Barth, & Needell, 1997; Dozier et al., 2001; Fein, Gariboldi, & Boni, 1993). Among adolescents, the research is more equivocal although it leans decidedly toward reducing our reliance on group settings for adolescents who cannot live at home (Anglin, 2004; Colton, 1989; Fulcher, 2001; Maluccio & Marlow, 1972; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998).

<sup>1</sup>To be fair, no state or provider organization advocates raising very young children in a group setting. Moreover, many of the young children in non-family settings are medically fragile.

Despite the evidence, the practice of placing children into group and congregate care persists in most places around the country. The question is why and what can be done, from a policy perspective, to align practice with what is known about the benefits of group care? There are, of course, a number of ways to answer this question. One important but largely neglected approach starts with the question of whether the use of group care varies in different parts of the country and why. We know that congregate care use differs based on age – older children are more likely to use non-family based care (Berrick, Courtney, & Barth, 1993). We also know that there is some variation in the use of group care from state-to-state. What is less well known is the extent to which state variation is a function of the children served. If age is associated with congregate care placement, states that serve more adolescents will have higher congregate care placement rates, all else being equal. We also know very little about how other attributes of place affect the use of congregate care. For example, at the county level, are there county attributes associated with higher than average congregate care placement rates even after controlling for the characteristics of the children coming into care? If so, how do those differences weigh on the policy/practice debate? Finally, how does public policy affect the utilization of congregate care? Federal policy encourages states to use the least restrictive setting when weighing placement options; a number of states use assessments to better match the level of care with what the child needs; other states use performance-based contracts to influence where congregate care falls on the continuum of care; still others restrict access to congregate care on the basis of age. That said we do not know if and how these mechanisms affect congregate care utilization in large part because we do not know what congregate care utilization looks like at a population level.

Our focus on these questions arises out of an interest in better understanding how context, policy, and children served interact to produce trends in congregate care use. Although the current discourse suggests the use of congregate care exceeds what is necessary, there are few arguments put forward that suggest the true demand for congregate care is zero. If that is indeed the case – that the true demand for congregate care is below current utilization but not zero – then we are well served if we understand more clearly how much congregate care is used, where it is used the most, and where it is used the least, and then attach those patterns to policy. In this paper, we tackle the first part of the problem: how much congregate is used, where is it used the most, and how use is a function of context. The analysis sets the stage for two important follow-up questions: Do state policies influence the use of congregate care and are there elements of existing state policy that other states should emulate to bring a better balance between the use of congregate care and what is needed to improve the well-being of young people?

## Methodology

We start with placement spells for all children who entered foster care for the first time between January 1, 2010 and December 31, 2012, as observed through December 31, 2013. These records include data from 21 states in the Multistate Foster Care Data Archive (FCDA); all state and county names have been redacted. The selected spells include those that last more than four days.

Because states define group and other forms of congregate care differently, we have adopted a simple coding scheme. Children placed with families – foster families and relative families – are regarded as being in a family setting. Congregate care includes group home, shelters and residential treatment. Defined in this way congregate care is anything but a homogeneous category of placement types. Nonetheless, we focus on this somewhat undifferentiated category as a starting point and for purposes of setting the context for a more refined look at how the congregate placement sector differentiates itself.

We focus on two measures of congregate care use:

- First placement in congregate care: This measure is used to examine the proportion of children placed in congregate care as their first placement upon entering out-of-home care for the first time.
- Any placement in congregate care: This measure is used to find the children who were placed in congregate care (for any length of time) at any point during their first foster care spell.<sup>2</sup>

With respect to how congregate care use varies, we focus on age at placement, gender, and race/ethnicity. Four age groups are defined: under one, one to five, six to twelve, and thirteen and above. Race/ethnicity includes separate categories for whites, African Americans, Hispanics, and other (which includes races and ethnicities not listed separately along with unknown or missing).

The analysis has two parts. The first is descriptive and reveals the extent to which congregate care utilization differs between and within states; the second uses multilevel models to understand how person and place interact to influence the likelihood a child will be placed in congregate care and whether high use counties share other characteristics. Specifically, we test a three-level model to examine the influence of the following on the likelihood of experiencing congregate care as a first placement type:

- At Level 1, we test the effects of three child-specific variables: age at entry into foster care, race/ethnicity, and gender.
- At Level 2, we test the effects of two county characteristics: urbanicity and socioeconomic status of the local population.
- At Level 3 we account for the between-state variation in congregate care use.

The Level 2 taxonomy divides counties into urban/not-urban, with urban counties defined as counties where more than 75 percent of the resident population lives within the urban center. For socioeconomic status (SES), we categorize counties by comparing the county SES to the state's overall SES. Each county is ranked as either worse than (1) or better than (0) than the state average on four indicators collected by the 2010 U.S. Census: poverty rate, percent of people with less than a high school education, unemployment rate, and percent of homes with a single head of household. The rankings are then summed to create an index ranging from 0 to 4. In this analysis, counties with an index score of 4 (worse than the state average on all four categories) are identified as "Low SES." To understand context as a factor, we focus the multivariate analysis on a smaller sample of children from 961 counties in 14 states, who entered foster care for the first time between 2007 and 2009 (n = 204,320).

<sup>2</sup>When interpreting findings with regard to this variable it is important to note that, as in any longitudinal analysis of children's experiences in foster care, some number of children in the entry cohort will not have completed their spell in foster care by the date as of which the data are current. In this case, as of 12/31/2013, 21% of children in the 2010-2012 entry cohort were still in care—8% of 2010 entrants, 17% of 2011 entrants, and 37% of 2012 entrants. Practically speaking, this means that for more recent entry cohorts, the proportion of children with "any congregate care placement" may be underestimated, especially when that type of placement occurs later in a child's spell, as in the case of children stepping up into a higher level of care.

## Findings

### Placement into Congregate Care

Table 1 shows the number and proportion of children in the 2010-2012 entry cohorts that (a) experienced a first placement in congregate care, and (b) spent any time in congregate care during their spells. Of the 302,405 children who entered foster care for the first time during this three-year period, 15% had a first placement in congregate care, and 20% spent some time in congregate care during their spell; most children in this cohort (80%) did not spend any time in congregate care. Insofar as these states are concerned, the likelihood of experiencing some type of group or residential placement has been relatively stable in recent years. That an additional five percent of children fall into the *any congregate care* category relative to the *first placement* category is a proxy for how much late movement (step up) into group care there actually is.

Table 1: Children Experiencing First/Any Placement in Congregate Care, by Entry Year

Entry Cohort	Total first admissions	First Placement in Congregate Care		Any Placement in Congregate Care	
		Number	% of first admissions	Number	% of first admissions
Total	302,405	45,150	15%	59,234	20%
2010	99,792	14,606	15%	19,385	19%
2011	99,727	14,937	15%	19,598	20%
2012	102,886	15,607	15%	20,251	20%

### Between State Variation

The data in Table 1 reflect what is true across the diverse range of states included in the FCDA; from a policy and practice perspective, state variation in the use of group care is far more interesting. Figure 1 shows how the likelihood of placement into group care upon entry into care varies from state-to-state. The narrative is straightforward. Of the 21 states in this analysis, the mean state rate is 16 percent, which differs from the figure in Table 1 because of how a national statistic tends to favor the larger states. (In this case, larger states appear to use more group care.) That aside, individual state rates range widely, from four percent of first admissions in State C to forty-four percent of first admissions in State N.

When we consider children who spent *any* time in group or other forms of congregate care, a similar picture emerges (see Figure 2). Use of any congregate care varies from nine percent of first admissions in State E to fifty-one percent of first admissions in State N.

Figure 1: Proportion of Children with a First Placement in Congregate Care (CC) by State

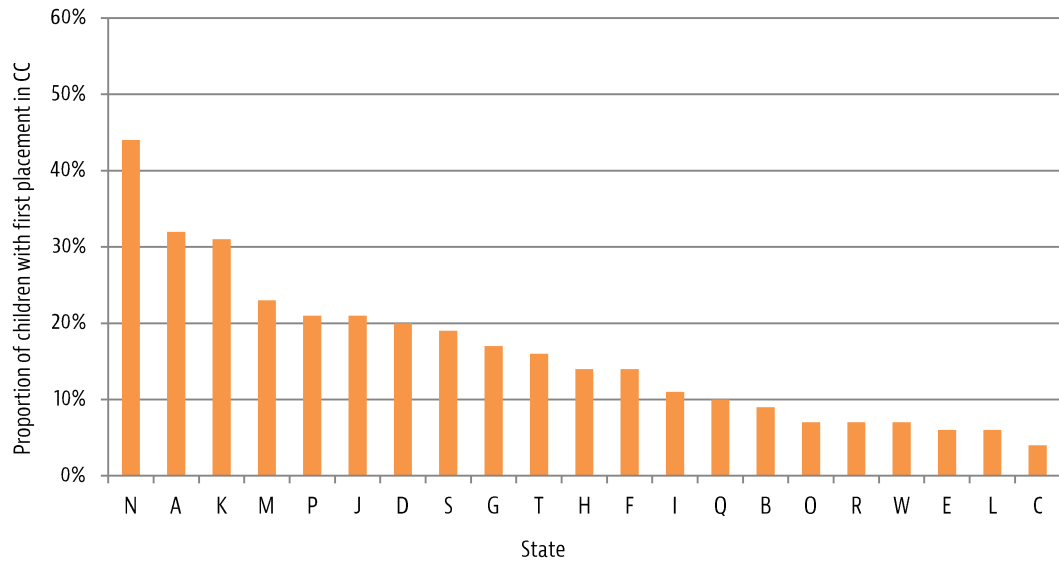
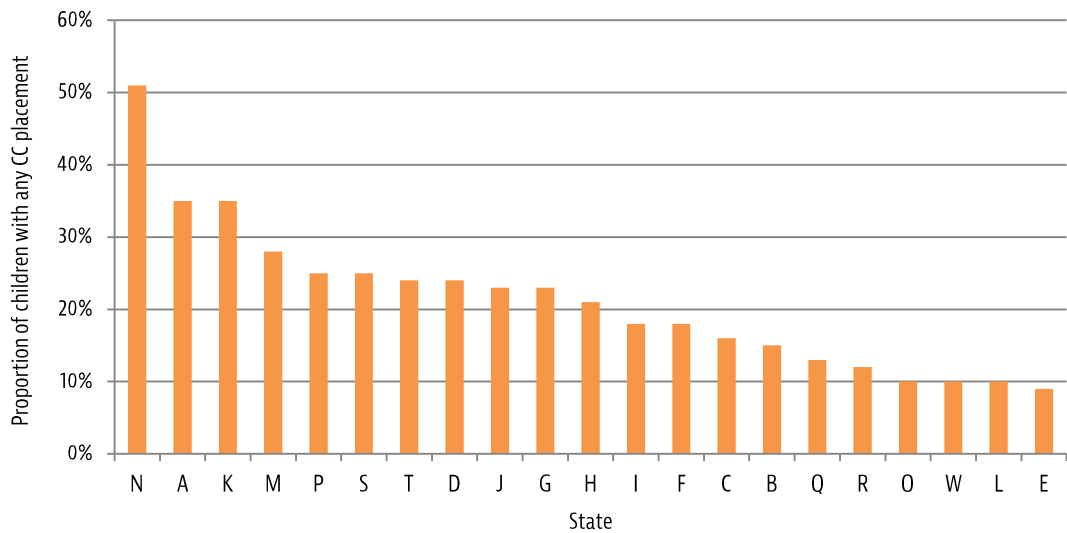


Figure 2: Proportion of Children with Any Congregate Care (CC) Placement by State



For the most part the rank orderings of the states are the same in Figures 1 and 2. Nevertheless, late movement into group care is more common in some states than others. For example, State J places 21 percent of children directly into group care and an additional 2 percent of children in congregate care settings later in their spell (i.e., 23 percent with any placement in group care). State C on the other hand places 4 percent of children directly into congregate care and an additional 12 percent into those settings later in their spell (i.e., 16 percent with any placement in group care).

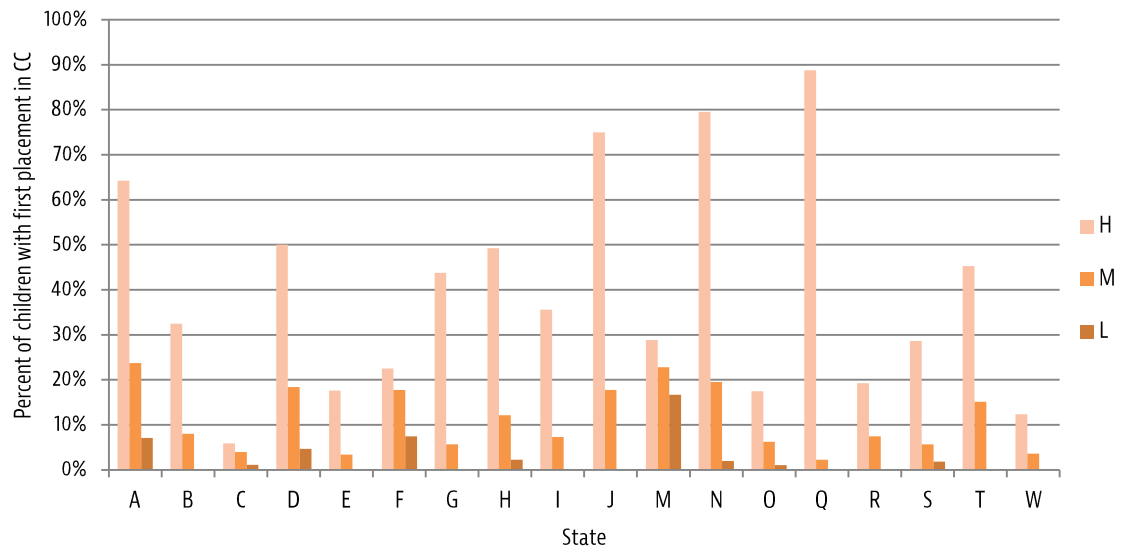
### Within State Variation

In addition to the considerable between-state variation, it is also the case that within states, placement of children in congregate care settings varies at the county level. Figure 3 depicts how first placement in



congregate care varies at the county level within each FCDA state.<sup>3</sup> To provide the full range, we identified, for each state, the county with the highest (“H”), middle (“M”), and lowest (“L”) rate. Figure 3 displays this within-state (between-county) variation.

Figure 3: Proportion of Children with a First Placement in Congregate Care (CC) by State and County



These findings reveal major differences in counties’ use of group care as a first placement option (rates range from zero to 89 percent). They also show that, in some instances, county congregate care use diverges considerably from its statewide trend. For instance, as noted in the previous section, State N has the highest overall state rate of first placement in congregate care (44 percent); yet, Figure 3 indicates that within State N, county rates range from 2 to 80 percent. In other words, we see evidence of a very low-use county in a high-use state—a finding that would be invisible if we looked at state rates, alone.

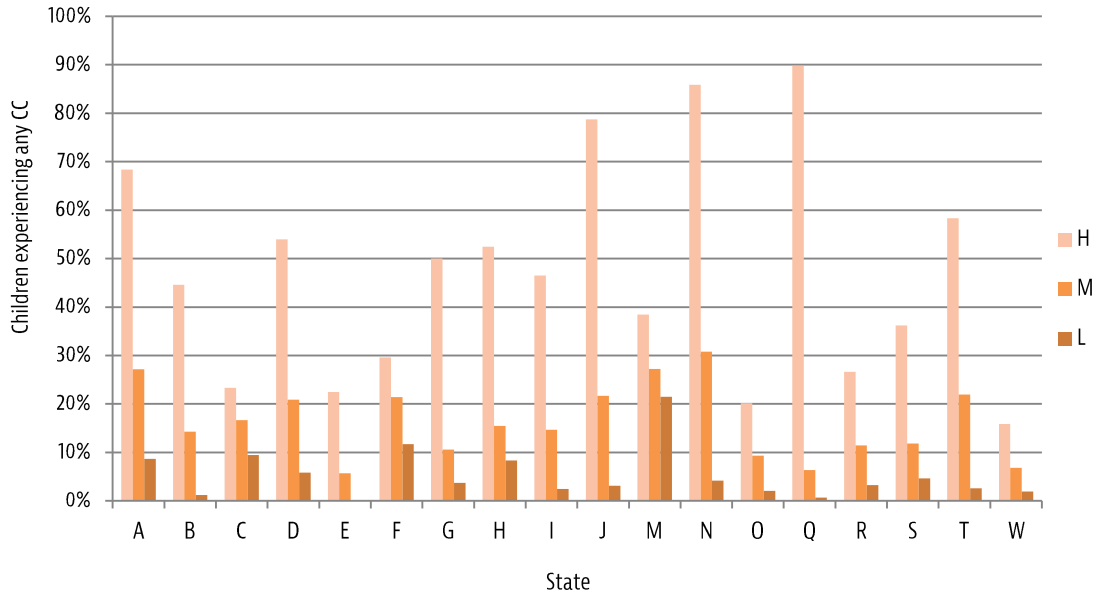
The opposite is also true. State Q, for example, has a lower than average rate of first placement into congregate care: a 10% statewide rate, compared to the mean state rate of 16%. However, the highest-use county in State Q places 89% of first admissions in a group setting—the highest rate out of all the counties in all the states in this analysis. In other words, even in a state that, on average, uses congregate care as a first placement less frequently than most, there is a county where the vast majority of children – just about 9 out of every 10 – are placed directly into a non-family setting when they enter foster care.

Furthermore, while some states are fairly consistent across counties in the frequency with which they place children in congregate care settings, others exhibit considerably more variability. In State C, there is a difference of only 5 percentage points between the highest-rate county and the lowest-rate county (6 percent and 1 percent, respectively); in contrast, in State Q, counties vary within a range of 89 percentage points.

<sup>3</sup> Analysis includes 18 whole states contributing data to the FCDA (two stand-alone counties and the District of Columbia are removed). To minimize the reporting of extremely high/low rates due to small population sizes, counties were excluded if they had fewer than 50 total first admissions to foster care between 2010 and 2012. The retained counties were sorted by the proportion of first admissions experiencing first placement in congregate care; the counties with the highest, middle, and lowest percentages after sorting are presented. In cases where a state contained an even number of counties, the middle county with the higher percentage is recorded as the “middle” county. The same criteria are used in the analysis of “any congregate care” at the county level.

Likewise, Figure 4 highlights the notable within-state variation in the proportion of children experiencing placement in congregate care at any point during their spells. Again, the findings reveal not only wide within-state variation, but also considerable between-state variability on the range of county-level use.

Figure 4: Proportion of Children with Any Placement in Congregate Care (CC) by State and County



### Why Does Congregate Care Use Differ So Much?

The between and within state variation in congregate care use says a great deal about the structure of the system but it says very little about who uses congregate care and even less about how the sector is shaped by the young people it serves. It could simply be that the differences observed in Figures 3 and 4 are an artifact of the population entering care in those counties.

We probe this question in two ways. We start with person-level variation in the likelihood of entering congregate care. Teenagers are the best example. Everyone readily acknowledges that group care mostly serves older children. In this analysis we illustrate the extent to which that is true while also looking for differences connected to gender and race/ethnicity. The measure used comes from the data in Figure 3: given an admission into care what is the likelihood of being placed directly into congregate care. In the second step, we look for evidence that county variation reflects an age bias in the places where utilization is particularly high.

We round out the county analysis by looking at whether county demographics contribute to our overall understanding of why congregate care placement rates are so much higher in some counties as compared to others. In this analysis, we focus on whether a county is designated an urban county and its socio-economic character. With regard to urbanicity we are interested in the extent to which congregate is more readily found in population centers; with socio-economic indicators, the interest lies in the fact that so much of the child welfare system is tied up in the services it provides in economically disadvantaged areas. Child welfare services are found everywhere; this piece of the analysis looks at whether child welfare's footprint differs depending on the socio-economic character of the places where we find an abundance of congregate care.

## Who Uses Congregate Care?

For the states in the Archive, we retain basic demographic information about every child in public custody: age, race/ethnicity, and gender. The children accounted for in Table 1 are described in Table 2 by age at placement. As expected, young people between the ages of 13 and 17 are ones most likely to go straight into congregate care. Out of almost 54,000 teen placements, 22,000 (41 percent) started in some type of group care. If we include any child with a congregate placement, more than half of all adolescents had a congregate care placement. Moreover, in the difference between first and any (41 percent vs 53 percent), we see evidence of the fact that teenagers are also more likely to move from a family setting into congregate care than younger children are.

Table 2: Rate of First and Any Placement in Congregate Care, By Age at Entry

Age at entry	First Placement in Congregate Care			Any Placement in Congregate Care	
	First admissions	Number	% of first admissions	Number	% of first admissions
Total	302,405	45,150	15%	59,234	20%
Under 1	65,751	2,926	4%	3,774	6%
1 to 5	105,315	8,941	8%	11,138	11%
6 to 12	77,516	11,188	14%	15,864	20%
13 to 17	53,823	22,095	41%	28,458	53%

Younger children are simply less likely to go into congregate care. Compared to 6 to 12 year olds, the teenagers are 3 times more likely to use congregate care. Compared to even younger children the figures are 5 and 10 times less likely, for 1 to 5 year olds and infants respectively. Evidence of late movement, while present, is also less common.

Other key child characteristics – gender and race/ethnicity – are not as closely associated with placement in congregate care. Tables 3 and 4 show the likelihood of first and any placement in congregate care by race/ethnicity and gender. African American children are slightly more likely to be placed in congregate care than children of other backgrounds. Males are slightly more likely than females to experience this type of out-of-home care.

Table 3: Rate of First and Any Placement in Congregate Care, By Race/Ethnicity

Race/Ethnicity	First Placement in Congregate Care			Any Placement in Congregate Care	
	First admissions	Number	% of first admissions	Number	% of first admissions
Total	302,405	45,150	15%	59,234	20%
African American	68,878	11,465	17%	15,286	22%
Hispanic	86,013	12,714	15%	16,553	19%
White	116,893	16,284	14%	21,639	19%
Other	30,621	4,687	15%	5,756	19%

Table 4: Rate of First and Any Placement in Congregate Care, By Gender

Gender	First admissions <sup>4</sup>	First Placement in Congregate Care		Any Placement in Congregate Care	
		Number	% of first admissions	Number	% of first admissions
Total	302,405	45,150	15%	59,234	20%
Female	150,147	21,024	14%	27,831	19%
Male	152,256	24,125	16%	31,402	21%

## The Role of Context

To this point, we have described a relationship between congregate care placement and the state of origin, the county of origin, and child characteristics. In this section, we examine the extent to which person, place, and congregate care use are linked together.

Table 5 reports the demographic and placement characteristics of the population.<sup>4</sup> Twenty-four percent of children experienced congregate care as their first placement type. Fifty percent were male, 42 percent were African American, and 22 percent entered care between the ages of 13 and 17; approximately 4 percent of the children in the sample had all three of these characteristics.

Table 5: Descriptive Statistics

Variable	Number	Percent
Gender	204,320	100%
Male	102,038	49.9%
Female	102,282	50.1%
Race	204,320	100%
African American	85,205	41.7%
White	119,115	58.3%
Age at entry	204,320	100%
0 to 12	160,267	78.4%
Teen (13 to 17)	44,053	21.6%
African American*Male*Teen	204,320	100%
Yes	7,576	3.7%
No	196,744	96.3%
First Placement Type	204,320	100%
Congregate Care	48,769	23.9%
Not Congregate Care <sup>6</sup>	155,551	76.1%

<sup>4</sup> The higher rate of congregate care use for this population (admissions from '07 to '09) is a bit higher than the rate reported for the '10 through '12 group, which is indicative of a general decline in congregate care use during that period.

Table 6 describes the characteristics of the counties used for the study. Fourteen percent of the counties included in the analysis were considered urban. Nearly 10% of the counties fell into the “Low SES” category.

Table 6: County Characteristics

Variable	Number	Percent
Urbanicity	961	100%
Urban	134	13.9%
Non-urban	827	86.1%
SES	961	100%
Low	92	9.6%
Other	869	90.4%

To determine the extent to which child, county, and state level characteristics are tied to the likelihood of starting off in congregate care, we add variables to the model one level at a time. The results are displayed in Table 7.

Model 1 tests the effects of the child-level attributes. As expected, race/ethnicity, gender, and age are each significant predictors of congregate care placement. Specifically, children age 13 and older are 38 percent more likely to be placed in congregate care than children younger than 13. Being African American and being a male also increase the likelihood of residential placement. After accounting for age and gender, African American children are about 5 percent more likely to experience group care than white children; males are about 4 percent more likely than females to experience a congregate care setting after accounting for age and race/ethnicity.

In Model 1 we described fixed effects. In this context, a fixed effect means we expect the relationship between age and placement in congregate care, as one example, to be roughly the same in each county. The multilevel model allows us to test this assertion directly. The test has two dimensions. The first simply tests whether the relationship between child characteristics (age, race/ethnicity, gender) and congregate care placement varies from county to county. The second considers whether county characteristics (i.e., urbanicity and SES) explain *why* the relationship between child characteristics and congregate care placement differs from one county to another. In other words, we want to understand whether county urbanicity and SES influence the likelihood of congregate care placement after accounting for the influence of case mix.

Model 2 examines whether the base rates of placement in congregate care vary based on urbanicity and SES, measured at the county level. In Model 2 (as well as Models 3 and 4), the intercept describes the likelihood of entering into congregate for young people under the age of 13 who are white and female. The parameters in the model effectively measure the disparity associated with the measured characteristics: Being an African American raises the odds by seventeen percent; being a male raises the odds by twenty-nine percent. Being a teenager raises the odds of going into congregate care by a factor of six. The difference in the age effect from Model 1 to Model 2 suggests that there are counties in which the effect of age on the likelihood of placement in congregate care is particularly pronounced.

Table 7: Multilevel Model of Child and County Characteristics on the Odds of Being Placed in Congregate Care

	Model 1	Model 2	Model 3	Model 4
	Odds Ratio (Prob.)	Odds Ratio (Prob.)	Odds Ratio (Prob.)	Odds Ratio (Prob.)
LEVEL 1 (Child)				
Intercept	1.14 (< .001)	.0854 (< .001)	.0867 (< .001)	0.0878 (< .001)
Teen	1.38 (< .001)	6.58 (< .001)	6.58 (< .001)	6.58 (< .001)
African American	1.05 (< .001)	1.17 (< .001)	1.18 (< .001)	1.06 (.104)
Male	1.04 (< .001)	1.29 (< .001)	1.29 (< .001)	1.29 (< .001)
LEVEL 2 (County)				
<i>Intercept</i>				
Urban	--	1.43 (< .001)	1.31 (.014)	1.29 (.026)
Low SES	--	.718 (.012)	.612 (< .001)	.631 (.002)
Urban* Low SES	--	--	2.35 (.012)	2.29 (.015)
<i>Race</i>				
Urban	--	--	--	1.14 (.001)
Low SES	--	--	--	1.005 (.959)
Urban* Low SES	--	--	--	.984 (.869)
Observations				
Level 1 Units (Children)	204,320	204,321	204,321	204,321
Level 2 Units (Counties)	NA	960	960	960
Variance Component		1.16 (< .001)	1.15 (< .001)	1.15 (< .001)
X <sup>2</sup>				

The test of whether the intercept varies from county-to-county suggests that, indeed, county variation of the sort observed in Figure 3 is substantial and not accounted for by the characteristics of the children served in the county. The results also indicate that the base rate of placement in congregate care (i.e., the intercept) does vary based on whether the county is categorized as urban. Specifically, the odds of congregate care placement are roughly forty-three percent higher in urban counties. That said, low county SES status reduces the odds of placement in a congregate care setting.

Model 3 is identical to Model 2 with one exception. In Model 3, we add a term to the analysis that accounts for whether the county is both urban and socio-economically disadvantaged. The results tied to child-level attributes are largely unchanged. Teenagers, African Americans, and males are all more likely to be placed in congregate care. The main effect of urbanicity persists: urban counties use more congregate care. The main effect of SES is larger and significant: the use of congregate care is lower in low SES counties. The change is due to the addition of the interaction terms, which separates counties that are both urban and low SES and compares them with the others. The results show that the use of congregate care is higher in urban, low SES counties.

The last model, Model 4, examines the elevated rates of congregate care use among African Americans. In each of the previous models, the young person's race was tied to an increased likelihood of placement into congregate care relative to whites. As before, in this analysis, we are interested in whether the effect of race is consistent across counties. If so, the results would suggest that even after controlling for age and gender plus attributes of the places where children live, African Americans are more likely to be placed in a congregate care setting. Alternatively, if attributes of place modify the relationship between race and congregate care placement, we have evidence of a contextual effect. More specifically, the results would suggest the use of congregate care by African Americans is a function of where they live.

The results found in Model 4 indicate that age and gender effects are stable. However, when we examine the direct effect of race on the likelihood of placement in congregate care, the effect of race observed in prior models is reduced in magnitude and is no longer statistically significant. The change, it appears, is tied to how attributes of place are related to race. In urban counties, the likelihood of placement in congregate care is fourteen percent higher than it is in non-urban counties. SES status of the county no longer affects entry into congregate care and counties that are both low SES and urban are not more likely to use congregate care than those not classified as urban and low SES. In short, while it is true that African American children are more likely to experience group care, when we factor in the effects of race, urbanicity, and county SES, that increased likelihood reflects the fact that most African American children live in cities.

The data provided in Table 8 provide additional background as to why any tendency there is to place African Americans in congregate care may be tied to where they live. First, of the admissions counted between 2007 and 2009 (204,230), sixty-seven percent occurred in what we called an urban county. Second, in non-urban areas, where placement in congregate care tends to be lower, only sixteen percent of the admissions involved an African American. Finally, eighty-seven percent of the African Americans in the sample lived in an urban county. Given that urban areas are associated with elevated rates of congregate care use, the fact that so many African Americans enter urban child welfare systems explains, at least partially, why we observed higher rates of congregate care placement among African Americans.

Table 8: Foster Care Admissions by Urbanicity and Race

Urbanicity	Race		Total
	African American	White	
Urban	74,223	63,062	137,285
Non-urban	10,982	56,053	67,035
Total	85,205	119,115	204,320
Urban	54%	46%	100%
Non-urban	16%	84%	100%
Total	42%	58%	100%
Urban	87%	53%	67%
Non-urban	13%	47%	33%
Total	100%	100%	100%

Table 9 further clarifies the result. In effect, the findings in Model 1 of Table 6 describe the marginal effect of race on congregate care placement. The increased odds correspond with the marginal difference in Table 9 (26% for African Americans vs 22% percent for whites). That difference is larger than the difference observed when urban whites (25%) and urban African Americans children (27%) are compared. Both whites and African American experience higher rates of congregate care placement in urban areas along with much lower rates in non-urban areas.

Table 9: Likelihood of First Placement in Congregate Care, by Race and Urbanicity

Race	Urbanicity		Total
	Urban	Non-urban	
African American	27%	20%	26%
White	25%	19%	22%
Total	26%	19%	24%



## Summary and Implications

The use of congregate care in its various forms has long been the focus of attention (Bush, 1980; Wolins & Piliavin, 1960). In large measure, the attention stems from the fact that the clinical benefits of congregate care are not all that clear-cut once well-being and relative cost are taken into account. Put another way, there is a sense the same resources redirected to other forms of care would yield comparable if not better results for children and families. At a population-level, it is an interesting but largely untested proposition.

A better understanding of where group care fits along the continuum of child welfare services depends on two types of research. The first is clinical research that compares the outcomes for children in various types of care. Given the preference for randomized clinical trials as the basis for testing the equivalence of two interventions, clinical research that attests to the relative benefits of one form of care over another will be hard to launch.

The second type of research has more to do with a systemic view of congregate care. We found significant variation in the level of congregate care use both between and within states. On the one hand, we expected to find variation between states; as policy contexts, states differ and those differences might (or should) shape reliance on congregate care. That said, there is very little known about state policies vis-à-vis congregate care use beyond the stated preference for most family-like, least restrictive settings. On the other hand, the within state variation is striking because counties operate within a common state policy framework. Given a state framework, if any, one would expect the variation between counties to be minimal, once attributes of the young people and counties are taken into account. We found that was not the case. Attributes of children do matter, as do the attributes of counties. However, substantial residual variation remains to be explained. We strongly suspect that residual variation is tied to systemic factors.

With that residual variation in mind, what type of systemic research makes the most sense? The most obvious first choice has to do with state policy. States do regulate group and other forms of congregate care placement. We simply do not know how that policy varies and whether certain policy combinations affect the use of congregate care in clinically meaningful ways more so than others. A second line of research would assess how the structure of the congregate care system differs from one state or county to the next. Questions in this domain have several facets. The first pertains to the variety of group care settings. We grouped the various forms of congregate care into a large undifferentiated category, but the reality is that the various forms of congregate care and their place on the continuum of care differ. The diversity of local systems may reveal structures that influence the use of congregate care that these data did not probe. Another systemic feature is size. Use of congregate care and the size of the congregate care network (e.g., the number of beds) are linked so independently measuring the two indicators for purposes of showing how one is related to the other is tricky. Nevertheless, there is the possibility that bed supply is its own source of demand.

From a research perspective, the problem is we know very little about the systemic factors that influence congregate care utilization. It is an important gap in the literature with significant relevance for public policy. Generally speaking, policies that strive to reduce the unnecessary use of congregate care target case-level decisions. Better assessment and level-of-care assignments are two examples. In the face of systemic pressure, more effective policy and regulatory practices might target the macro forces that may, *in part*, determine whether a child is placed in congregate care. For example, the observed rates in non-urban areas



may be a function of the fact that the true demand for congregate care, whatever that might be, is too small to maintain a diverse supply of beds. Where that is true, it may be that young people who would otherwise benefit from a placement in congregate care are in effect denied that benefit on the basis of supply. The reverse might also be true. Urban areas may support the true demand with an adequate supply, but fluctuation in demand over time may require adaptive behavior on the part of the providers. The form of that adaptive, systemic behavior is unknown and should be the target of research.

The data and the findings herein are somewhat limited. First, for purposes of the multivariate analysis, we only examined first placements. As we observed, most congregate care use happens when children are first placed but a significant share happens after placement in a family setting. The picture of congregate care use we painted may differ once all placements are considered. We also did not consider how long children spend in congregate care as a measure of utilization. Again, the picture of congregate care use could change with the addition of those data. The omission of these measures from the multivariate analysis along with the fact that there is no other research that takes a comparable look is as much a limitation of the knowledge base as it is the study itself. For such an important issue, there is much we still need to learn. Another limitation has to do with the number of covariates used in the analysis. Ideally one would have measures of well-being in order to assess whether the decision to use congregate care is sensitive to what young people need. Large-scale studies of the sort carried for this paper would require that states and counties use a common instrument or at least instruments that touch similar domains of well-being. The National Survey of Child and Adolescent Well-being begins to address this concern but is limited in the ability to capture the variance associated with counties. That said, better assessment data would help clarify the relationship between need and use of congregate care but would not reveal much about the systemic factors that shape utilization patterns.

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