

# Center for Regional Economic Research

CRER White Paper Number 6 July 2024

# Origins and Destinations of Chattanooga's Young Adult Migrants

Howard J. Wall

Director and Chief Economist Center for Regional Economic Research The University of Tennessee at Chattanooga

# **Summary**

This paper uses a unique dataset on the migration of young adults between commuting zones to analyze the most common origins and destinations of Chattanooga's young adult migrants. Many more young adults moved into Chattanooga than moved out of it, but Chattanooga's net in-migration rate was much lower than those for large areas such as Nashville and Atlanta. Generally, there was a hierarchy of migration according to area size: Chattanooga received many more young adult migrants from small areas nearby but sent many more to large areas both near and far away. Parental income was strongly related to the likelihood of migration and the destinations and origins of Chattanooga's young adult migrants.

### Introduction

This paper analyzes the origins and destinations of young adults moving into and out of the Chattanooga metro area. The analysis takes advantage of a unique data set developed by a partnership between Harvard University and the Census Bureau. It tracks people born between 1984 and 1992 to determine their locations at ages 16 and 26 using their parents' tax returns, their own tax returns, and other government documents. The dataset provides estimates of the number of young adults who migrated in each direction between the 741 Commuting Zones (CZ) in the United States (see the inset to the right). The data is also disaggregated by parental income categories.

There are several reasons to focus on young adults: it is the most common age to move, movers are likely to stay and put down roots at their age 26 location, the average migration choices made by young adults differ significantly from those of other age groups. iv To illustrate the last of these points, the table to the right shows net migration of all age groups to the Chattanooga CZ. The CZs in the table are those with the highest gross migration in and out of Chattanooga. Nashville was the most common origin or destination for Chattanooga migrants and was a net gainer of young adults but a net loser of people across age groups. Similarly, Los Angeles was a net recipient of young adults from Chattanooga but was a net provider of people overall. In contrast, Cleveland, Knoxville, Crossville, Gadsden, and

### Commuting Zones

A Commuting Zone (CZ) is a collection of counties that represent a local labor market as determined by residents' commuting patterns. They are similar to the more-familiar Metropolitan Statistical Areas in this regard, but cover the entire country, including rural areas and Micropolitan Statistical Areas. This feature makes CZs more useful for examining internal migration because a great deal of moves are to or from non-urban areas. For reference, the map below shows the CZs surrounding the seven-county Chattanooga CZ.1 As discussed in this paper, these nearby CZs are the most common origins and destinations for migrants into and out of Chattanooga.

### Commuting Zones Surrounding Chattanooga



# Net In-Migration to Chattanooga

	Young	All Aged 1
Commuting Zone	Adults	or Over
Nashville, TN	-312	721
Rome, GA	450	590
Cleveland, TN	94	-22
Atlanta, GA	-218	-155
Knoxville, TN	146	-368
Crossville, TN	139	-130
Memphis, TN	380	-119
Gadsden, AL	222	-8
Johnson City, TN	109	98
Los Angeles, CA	-83	482

Top ten CZs by total migration to and from Chattanooga for those 1 year or older.

Memphis were net recipients of Chattanoogans overall but were net providers of young adults to Chattanooga. These differences in location preferences between young adults and other age groups warrant a separate analysis for the former group. In-migration is generally a good thing, but it is good for many different reasons that depend on who is migrating and why.

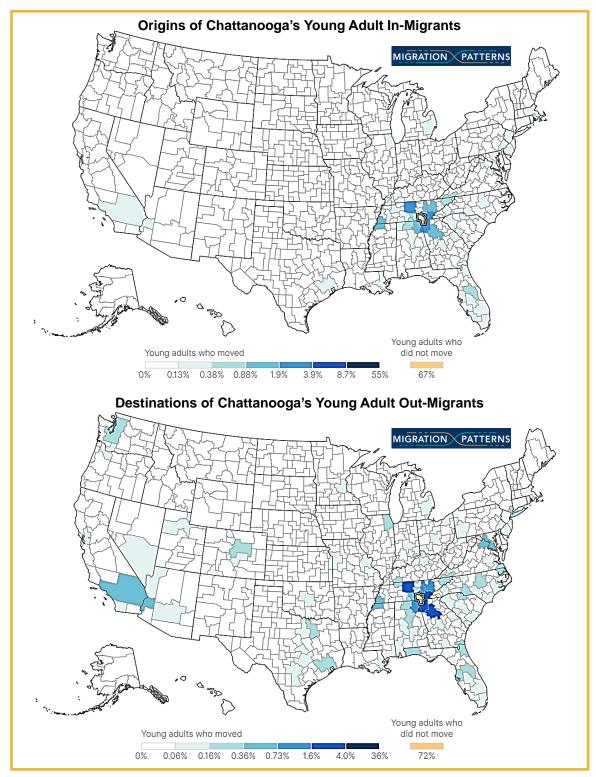
### Chattanooga Compared to its Neighbors

The table below puts Chattanooga's migration of young adults into its regional context by comparing various measures of migration across the CZs in Chattanooga's region. The CZs are ordered by their net inmigration rates, which is net in-migration relative to the number of 16-year-olds that a CZ started with. The first measure to note is the stay rate, the percentage of young adults who were in the same CZ at age 26 as they were at age 16. Chattanooga had the fourth highest stay rate, behind only Birmingham, Nashville, and Knoxville. Generally speaking, the lowest stay rates were in the rural areas and smaller cities of the region. This pattern was reflected in the net in-migration rates, showing a general tendency for higher net migration into urban areas. Winder, GA, which is part of the Atlanta metro area, was a notable exception in that it had a very low stay rate but the second highest rate of in-migration. Chattanooga had the sixth highest net in-migration rate, well behind Nashville and Winder but well ahead of most CZs in the region. Note that migrants to popular destinations moved much longer distances than did those moving to unpopular destinations, although the distance moved by out-migration did not have as strong of a pattern.

Regional Migration Rates for Young Adults								
		In- Migration	Average Distance	Out- Migration	Average Distance	Net In- Migration		
CZ	Stay Rate	Rate	Moved	Rate	Moved	Rate		
Nashville, TN	73.0	62.0	208	26.7	135	35.3		
Winder, GA	59.7	73.8	147	40.3	138	33.5		
Knoxville, TN	72.2	38.6	134	26.8	126	11.9		
Atlanta, GA	68.9	41.0	187	31.0	177	10.0		
Cookeville, TN	65.7	42.9	114	33.7	112	9.2		
Chattanooga, TN	71.8	35.3	114	27.9	112	7.4		
Huntsville, AL	69.0	35.4	131	31.0	133	4.4		
Gainesville, GA	62.8	40.2	108	37.1	119	3.1		
Birmingham, AL	73.7	28.2	85	26.3	112	1.9		
Cleveland, TN	69.2	31.0	107	30.2	103	0.8		
Columbia, TN	61.5	37.4	120	38.3	106	-0.9		
McMinnville, TN	64.8	30.1	91	34.9	88	-4.8		
Tullahoma, TN	63.1	30.6	104	36.5	111	-5.8		
Crossville, TN	63.5	28.1	97	35.9	103	-7.8		
Rome, GA	68.7	22.2	73	31.2	106	-9.1		
Gadsden, AL	68.4	20.9	70	31.5	90	-10.6		
Ellijay, GA	53.2	33.1	91	46.6	136	-13.6		
Talladega, AL	61.8	22.8	56	38.2	91	-15.3		
Andrews, NC	55.0	28.0	116	44.7	158	-16.7		

# Where Are Young Adult Migrants from and Where Do They Go?

As shown in the previous table, about 28 percent of Chattanooga's 16-year-olds were not in Chattanooga at age 26, but they were more than replaced by the young adults moving into the area. The maps below, from the interactive tool at <u>migrationpatterns.org</u>, illustrate how the origins and destinations of Chattanooga's



young adult migrants differ. The most common destinations are also the most common origins, but distant destinations are more likely than distant origins.

To dig deeper into these numbers, the table below lists the top 20 most common origins and destinations of Chattanooga's young adult migrants. The top 10 of each list is dominated by CZs within Chattanooga's region, and nine CZs are on both lists. The difference between the two top 10s is that small, nearby CZs were the top two sources of migration into Chattanooga, whereas the two large, more-distant urban areas were the top two destinations of migration out of Chattanooga. The second 10 CZs on the lists have a pattern similar to this in that out-migrant' destinations tended to have been larger and more distant than in-migrants' origins.

To	Top 20 Origins and Destinations for Young Adult Migration to and from Chattanooga									
	Chattanoo	ga In-Migratio	n	Chattanooga Out-Migration						
		From	Share of In-			To Dest-	Share of Out-			
Rank	Origin CZ	Origin CZ	Migrants	Rank	Destination CZ	ination CZ	Migrants			
1	Rome, GA	1502	7.8	1	Nashville, TN	1464	9.5			
2	Cleveland, TN	1162	6.0	2	Atlanta, GA	1256	8.2			
3	Nashville, TN	1152	6.0	3	Cleveland, TN	1068	6.9			
4	Atlanta, GA	1038	5.4	4	Rome, GA	1052	6.8			
5	Knoxville, TN	826	4.3	5	Knoxville, TN	680	4.4			
6	Gadsden, AL	621	3.2	6	Crossville, TN	464	3.0			
7	Memphis, TN	607	3.2	7	Gadsden, AL	399	2.6			
8	Crossville, TN	603	3.1	8	Tullahoma, TN	260	1.7			
9	Tullahoma, TN	357	1.9	9	Los Angeles, CA	258	1.7			
10	Johnson City, TN	260	1.4	10	Memphis, TN	227	1.5			
11	Huntsville, AL	229	1.2	11	Washington, DC	224	1.5			
12	Orlando, FL	227	1.2	12	Birmingham, AL	188	1.2			
13	Chicago, IL	212	1.1	13	New York, NY	185	1.2			
14	Birmingham, AL	206	1.1	14	Chicago, IL	157	1.0			
15	Detroit, MI	205	1.1	15	Denver, CO	156	1.0			
16	Morristown, TN	177	0.9	16	Huntsville, AL	154	1.0			
17	Tampa, FL	177	0.9	17	Johnson City, TN	151	1.0			
18	Los Angeles, CA	175	0.9	18	Tampa, FL	143	0.9			
19	Jackson, TN	165	0.9	19	Seattle, WA	135	0.9			
20	Miami, FL	157	0.8	20	Jacksonville, FL	132	0.9			

The table below shows the top 20 and bottom 20 CZs in terms of net migration of young adults to Chattanooga and demonstrates the pattern more clearly. The top 20 CZs are mostly within Chattanooga's general region or elsewhere in Tennessee, whereas the bottom 20 CZs a spread across the country. The exceptions are Nashville and Atlanta, which were by far the most attractive destinations on net because of both proximity and opportunity. For young adults, at least, Chattanooga can be seen as an intermediate destination on the urban hierarchy: It was a net recipient of migrants from smaller, less-urban areas nearby and a net source of migrants to larger, more-urban areas both nearby and far away.

Net Migration of Young Adults to Chattanooga: Top 20 and Bottom 20 CZs									
	-	Net Migration to		•	Net Migration to				
Rank	CZ	Chattanooga	Rank	CZ	Chattanooga				
1	Rome, GA	450	740	Nashville, TN	-312				
2	Memphis, TN	380	739	Atlanta, GA	-218				
3	Gadsden, AL	222	738	Denver, CO	-104				
4	Knoxville, TN	146	737	New York, NY	-101				
5	Crossville, TN	139	736	Seattle, WA	-85				
6	Jackson, TN	130	735	Los Angeles, CA	-83				
7	Detroit, MI	126	734	Washington, DC	-75				
8	Orlando, FL	122	733	Pensacola, FL	-52				
9	Johnson City, TN	109	732	San Francisco, CA	-49				
10	Morristown, TN	105	731	Charleston, SC	-47				
11	Miami, FL	101	730	Honolulu, HI	-41				
12	Columbia, TN	100	729	Virginia Beach, VA	-38				
13	Tullahoma, TN	97	728	Dallas, Texas	-34				
14	Cleveland, TN	94	727	Savannah, GA	-33				
15	Dickson, TN	93	726	Winder, GA	-33				
16	Port St. Lucie, FL	80	725	Austin, TX	-33				
17	Huntsville, AL	75	724	Killeen, TX	-28				
18	Newark, NJ	63	723	Portland, OR	-24				
19	Cape Coral, FL	60	722	Lexington-Fayette, KY	-23				
20	Chicago, IL	55	721	Salt Lake City, UT	-23				

# Young Adult Migration by Income

Because of the way that the dataset was constructed, we are able to identify young adults according to their family's financial situation. Specifically, the data is subdivided according to the income quintile of their parents. Because parents' income is highly correlated with education, for example, we are able to get an admittedly fuzzy picture of the average characteristics of Chattanooga's young adult migrants. The table below presents some basic differences across the five income quintiles. Note first that stay rates were negatively related to parental income: The stay rate for those from the fifth quintile was more than 14 percentage points below that for those from the first quintile. That is, young adults from the richest 20

Parent's Income Quintile	Stay Rate	In- Migrants	Share of In- Migrants	Average Distance Moved	Out- Migrants	Share of Out- Migrants	Average Distance Moved	Net In- Migrants
First Quintile	74.9	3178	16.5	85	3035	19.7	86	143
Second Quintile	74.1	3465	18.0	90	3088	20.1	90	377
Third Quintile	73.2	4079	21.2	114	3093	20.1	107	986
Fourth Quintile	72.8	4197	21.8	126	2908	18.9	110	1289
Fifth Quintile	60.7	4331	22.5	166	3263	21.2	191	1068
Total	71.8	19250		114	15387		112	3863
Mean Quintile	2.8	3.2			3.0			3.7

percent of families were much more likely to have moved from Chattanooga by the time they are 26 years old compared to those from other income groups.

Young adults moving into Chattanooga were weighted toward the higher income quintiles, with the highest share coming from the top quintile. Note also that the average distance that in-migrants moved was strongly related to family income. Those from the highest quintile were from nearly twice as far away as those from the lowest quintile. The average quintile of young adult migrants into Chattanooga was 3.2 whereas the average for Chattanooga's young adult stayers was 2.8. The income distribution of young adult out-migrants from Chattanooga was relatively flat in that their shares of out-migrants didn't differ a great deal across quintiles. Thus, the average quintile for out-migrants—3.0—was between those for stayers and in-migrants. Finally, because in-migrants were weighted toward high-income quintiles and out-migrants were evenly distributed across quintiles, net in-migration was heavily weighted toward higher quintiles. More than 60 percent of net in-migrants were from the two highest quintiles, while only 13 percent came from the lowest two quintiles.

The table on the next page breaks the data down even further and shows the top and bottom ten origins and destinations of Chattanooga's young adult migrants for each income quintile. It also provides the top and bottom ten CZs for net in-migration of young adults. The numbers start getting relatively small when the data is disaggregated this much, but several broad trends are apparent: (1) Young adult in-migrants with parental income in the lowest quintiles were more likely to come from small CZs in the region, such as Rome and Cleveland, rather than from large areas in the region such as Nashville and Atlanta. This tendency reverses for higher quintiles. (2) Among out-migrants, this tendency was not very strong, although Nashville and Atlanta were, by far, the most common destinations for out-migrants from the two highest income quintiles. Note also those distant urban areas such as Los Angeles, New York, and Washington, DC, were much more common destinations for outmigrants from these two highest quintiles. (3) The combined effects of (1) and (2) meant that net in-migration was most positive for smaller CZs near to Chattanooga (plus Memphis), and were more negative for large, nearby CZs like Nashville and Atlanta. For the highest two quintiles, however, large, distant CZs like New York and Los Angeles were more common. Put another way, young adults from small CZs within the region tended to prefer Chattanooga to their home CZ whereas young adults from Chattanooga tended to prefer large urban areas both within the region and across the country.

Top 10 Origins and Destinations, Top and Bottom 10 CZs for Net Migration of Chattanooga Young Adult Migrants, by Parents' Income

of Chattanooga Young Adult Migrants, by Parents' Income											
l _			In-		Out-		_	Net In-			Net In-
	Rank		Migrants		Migrants			/ligrants			Migrant
ı	1	Rome, GA	366	Rome, GA	282	1	Rome, GA	84		Nashville, TN	-153
ı	2	Cleveland, TN	209	Cleveland, TN	255	2	Gadsden, AL	46		Atlanta, GA	-97
<u>a</u>	3	Gadsden, AL	165	Nashville, TN	249	3	Memphis, TN	41		Cleveland, TN	-46
First Quintile	4	Atlanta, GA	148	Atlanta, GA	245	4	Miami, FL	22	737	Clarksville, TN	-20
Ξ	5	Crossville, TN	137	Crossville, TN	134	5	Dickson, TN	20		Washington, DC	
7	6	Knoxville, TN	100	Gadsden, AL	119	6	Orlando, FL	18		Phoenix, AZ	-15
iΞ	7	Nashville, TN	96	Knoxville, TN	113	7	Morristown, TN	15		Knoxville, TN	-13
Ι-	8	Memphis, TN	86	Tullahoma, TN	75	8	New Orleans, LA			Seattle, WA	-12
ı	9	Tullahoma, TN	71	Memphis, TN	45	9	Brownsville, TX	15		Lexington, KY	-12
_	10	Orlando, FL	40	Clarksville, TN	36	10	Chicago, IL	13	731	Killeen, TX	-11
ı	1	Rome, GA	395	Nashville, TN	298	1	Rome, GA	101		Nashville, TN	-139
	2	Cleveland, TN	246	Rome, GA	294	2	Memphis, TN	77		Atlanta, GA	-57
Second Quintile	3	Atlanta, GA	182	Cleveland, TN	267	3	Crossville, TN	29	738	,	-21
Ξ	4	Nashville, TN	159	Atlanta, GA	239	4	Tampa, FL	28	737	Seattle, WA	-15
đ	5	Gadsden, AL	145	Gadsden, AL	122	5	Columbia, TN	23		San Fran., CA	-14
힏	6	Crossville, TN	143	Knoxville, TN	118	6	Gadsden, AL	23		Denver, CO	-14
ပ္ပ	7	Knoxville, TN	124	Crossville, TN	114	7	Jackson, TN	19	734	Lexington, KY	-12
Š	8	Memphis, TN	119	Tullahoma, TN	68	8	Miami, FL	19	733	Winder, GA	-12
1	9	Tullahoma, TN	61	Memphis, TN	42	9	Chicago, IL	15	732	Fort Worth, TX	-11
	10	Tampa, FL	47	Los Angeles, CA	39	10	Morristown, TN	14	731	San Antonio, TX	-10
ı	1	Rome, GA	334	Cleveland, TN	259	1	Rome, GA	100	740	Atlanta, GA	-60
ı	2	Cleveland, TN	287	Nashville, TN	248	2	Crossville, TN	72	739	Nashville, TN	-46
Φ	3	Nashville, TN	202	Rome, GA	234	3	Gadsden, AL	67	738	Denver, CO	-27
臣	4	Crossville, TN	175	Atlanta, GA	211	4	Knoxville, TN	59	737	Pensacola, FL	-24
Ξ	5	Gadsden, AL	165	Knoxville, TN	104	5	Memphis, TN	49	736	Seattle, WA	-17
9	6	Knoxville, TN	163	Crossville, TN	103	6	Morristown, TN	36	735	Los Angeles, CA	-12
Third Quintile	7	Atlanta, GA	151	Gadsden, AL	98	7	Cleveland, TN	28	734	Dallas, TX	-12
-	8	Memphis, TN	84	Tullahoma, TN	64	8	Dickson, TN	27	733	Salt Lake City, U	JT -10
1	9	Tullahoma, TN	73	Los Angeles, CA	A 51	9	Cape Coral, FL	26	732	Honolulu, HI	-9
	10	Johnson City, TN	54	Johnson City, TN	N 39	10	Orlando, FL	25	731	San Diego, CA	-8
	1	Nashville, TN	305	Nashville, TN	297	1	Cleveland, TN	79	740	Atlanta, GA	-39
1	2	Cleveland, TN	263	Atlanta, GA	223	2	Rome, GA	77	739	New York, NY	-21
<u>a</u>	3	Rome, GA	250	Cleveland, TN	184	3	Memphis, TN	67	738	Denver, CO	-19
<u>=</u>	4	Knoxville, TN	209	Rome, GA	173	4	Tullahoma, TN	55	737	Savannah, GA	-16
Quintile	5	Atlanta, GA	184	Knoxville, TN	155	5	Knoxville, TN	54	736	Washington, DC	-13
	6	Memphis, TN	107	Crossville, TN	82	6	Gadsden, AL	54	735	Austin, TX	-12
Fourth	7	Crossville, TN	105	Gadsden, AL	50	7	Jackson, TN	43	734	Charleston, SC	-12
ĸ	8	Gadsden, AL	104	Washington, DC	47	8	Orlando, FL	42	733	Los Angeles, CA	· -11
1	9	Tullahoma, TN	93	Los Angeles, CA	45	9	Johnson City, TN	40	732	Pensacola, FL	-11
	10	Johnson City, TN	71	Huntsville, AL	41	10	Columbia, TN	37	731	Houston, TX	-10
	1	Nashville, TN	390	Nashville, TN	372	1	Memphis, TN	146	740	New York, NY	-71
1	2	Atlanta, GA	373	Atlanta, GA	338	2	Rome, GA	88	739	Los Angeles, CA	· -54
ø)	3	Knoxville, TN	230	Knoxville, TN	190	3	Huntsville, AL	71	738	Denver, CO	-37
Fifth Quintile	4	Memphis, TN	211	Cleveland, TN	103	4	Cleveland, TN	54	737	Seattle, WA	-35
Ξ	5	Cleveland, TN	157	Washington, DC		5	Detroit, MI	48	736	Washington, DC	-31
g	6	Rome, GA	157	Los Angeles, CA		6	Tullahoma, TN	44	735	San Fran., CA	-24
皇	7	Huntsville, AL	97	New York, NY	83	7	Jackson, TN	43	734	Charleston, SC	-21
Ψ.	8	Birmingham, AL	75	Birmingham, AL		8	Knoxville, TN	40		Charlotte, NC	-20
	9	Johnson City, TN		Rome, GA	69	9	Atlanta, GA	35		Austin, TX	-14
	10	Chicago, IL	66	Memphis, TN	65	10	Johnson City, TN		731	Dallas, TX	-13
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### Summary

This paper uses a unique data set on the internal migration of young adults between 740 commuting zones to analyze their migration patterns into and out of the Chattanooga metro area. The main findings are:

- About 72 percent of Chattanooga's 16 year olds were still in Chattanooga at age 26, which was one
  of the highest stay rates in the region.
- Chattanooga had a 7.4 percent net in-migration rate for young adults, which amounted to almost 3900 more young adults in the area. This was well behind the net in-migration rates of Nashville, Atlanta, and Knoxville, but well ahead of most other CZs in the region.
- The most common origins and destinations for Chattanooga's young adult migrants were CZs
  within its region. In-migration was weighted toward smaller CZs such as Rome and Cleveland,
  whereas outmigration was weighted toward large CZs such as Nashville and Atlanta.
- For young adults, Chattanooga had net in-migration from smaller CZs nearby and net out-migration to large CZs both near and far away.
- Stay rates for young adults from Chattanooga were strongly related to parents' incomes. The rate for
  those from the lowest income quintile was 15 percentage points higher than for those from the
  highest quintile.
- Young adults who migrated into Chattanooga tended to have had parents from the highest income
  quintiles whereas those who moved out of Chattanooga were evenly distributed across income
  quintiles.
- Net in-migration of young adults into Chattanooga was heavily weighted toward the highest income
  quintiles. More than 60 percent of net in-migrants were from the two highest quintiles, while only 13
  percent came from the two lowest quintiles.
- Across income quintiles, Chattanooga's net in-migration tended to be larger for smaller CZs nearby (plus Memphis), and more negative for large, nearby CZs like Nashville and Atlanta as well as large CZs across the country.

### **Endnotes**

<sup>&</sup>lt;sup>i</sup> The data can be downloaded at <a href="https://www.census.gov/programs-surveys/ces/data/public-use-data/young-adult-migration-data-tables.html">https://www.census.gov/programs-surveys/ces/data/public-use-data/young-adult-migration-data-tables.html</a>. There is also an interactive data tool at <a href="https://www.migrationpatterns.org/">https://www.migrationpatterns.org/</a>.

<sup>&</sup>lt;sup>ii</sup> For details, see Sprung-Keyser, Ben; Hendren, Nathaniel; and Porter, Sonya, 2022, "The Radius of Economic Opportunity: Evidence from Migration and Local Labor Markets," U.S. Census Bureau Center for Economic Studies, Working Paper Number CES-22-27.

iii A discussion of commuting zones can be found on the website of the U.S. Department of Agriculture: <a href="https://www.ers.usda.gov/data-products/commuting-zones-and-labor-market-areas/">https://www.ers.usda.gov/data-products/commuting-zones-and-labor-market-areas/</a>

<sup>&</sup>lt;sup>iv</sup> For a discussion of recent migration trends, including the differences in migration volume by age, see Frey, William H., 2023, "Americans' Local Migration Reached a Historic Low in 2022, but Long-Distance Moves Picked Up," Brookings Institution.

<sup>&</sup>lt;sup>v</sup> This data from the Census Bureau covers all migration that occurred between 2014 and 2018 so as to match the last year covered by the data for young adults. The actual moves by young adults could have occurred prior to 2014, so the sources are not exact matches.