

## Postsecondary Outcomes for Students with Disabilities

Janet L. Applin, Ph.D.<sup>1</sup>; E. Gail Kirby, Ed.D. ; Stephanie Cornwell, Ed.D.

### Abstract

---

This study focused on the postsecondary success rates of students with disabilities in rural areas as compared to those from urban and suburban areas of Kentucky. Data were analyzed from a longitudinal study, the Kentucky Postsecondary Outcome Study, which was created to monitor the employment and education status of students with disabilities during their final year of high school and one year after exiting high school. Results suggest that the method of exit from high school and the geographic classification of the school strongly impact the postsecondary outcomes for students with disabilities in Kentucky. The significance of the results is discussed with respect to implications for practice and policy.

---

**Keywords:** Disabilities; dropout issues; employment; post school outcomes

### 1. Postsecondary Outcomes and Geographic Location

Research examining postsecondary outcomes and geographic location suggests that, not only do key differences exist between rural and urban school districts, but socioeconomic status plays a strong role in predicting the postsecondary outcome of students as well as their geographic location (Stanley, et al., 2007; Roscigno & Crowley, 2001; Roscigno et al., 2006; O'Connor & Spreen, 1988; Clasemann, 2012; Samel et al. 2011; Ulrich, 2011; Pennington et al., 2009). Rural and urban schools differ in their rates of free and reduced lunch and levels of parent education (Stanley et al., 2007; Roscigno & Crowley, 2001, Roscigno et al., 2006); funding and resources available to school districts (Roscigno & Crowley, 2001; Roscigno et al., 2006; Pennington et al., 2009); the ability to obtain and retain expert staff in the public schools (Pennington et al., 2009; Stanley et al., 2007); the proximity to institutions of higher education (Pennington et al., 2009); the availability of public transportation; the number of small businesses and industry, and vocational training opportunities (Pennington et al., 2009).

Research has explored the relationships between rural and urban school districts and postsecondary outcomes (Roscigno & Crowley, 2001); differences in postsecondary outcomes of students from rural districts based on manner of exit (Karpinski, Neubert, & Graham, 1992); differences in small town and big city special education services (Pennington, Horn, & Berrong, 2009); socioeconomic status and outcomes for students with learning disabilities (O'Connor & Spreen, 1988); traditional vs. non traditional schools and transition outcomes (Marshall, Powell, Pierce, Nolan & Fehringer, 2012); and resilience and resistance in response to graduation (Samel, Sondergeld, Fischer, & Patterson, 2011). However, there is scant evidence in the literature that examines the relationship between geographic location and postsecondary outcomes for students with disabilities. The purpose of this study was to compare the postsecondary success rates of students with disabilities in rural areas to those in urban areas in Kentucky. Data were accessed from the Kentucky Postsecondary Outcome Study and results suggest that the geographic classification as rural and suburban has a strong relationship with the postsecondary outcomes for students with disabilities in Kentucky. Specifically, we examined the following research questions:

---

<sup>1</sup> Western Kentucky University, 1906 College Heights Blvd. #11030, Bowling Green, KY 42101, [janet.applin@wku.edu](mailto:janet.applin@wku.edu).

**General Research Question A:** To what extent does the exit status of students with disabilities from each of the classifications of rural, suburban, and urban areas influence postsecondary outcomes?

1. To what extent does a student's exit status of dropout influence the postsecondary outcome?
2. To what extent does a student's exit status as earning a general diploma influence the postsecondary outcome?
3. To what extent does a student's exit status as a certificate/age out influence the postsecondary outcome?

**General Research Question B:** To what extent does the classification as rural, suburban, and urban influence the postsecondary outcomes for students with disabilities?

1. To what extent does the rural, suburban, and urban status of an area influence the probability of gaining competitive employment?
2. To what extent does the rural, suburban, and urban status of an area influence the probability of postsecondary education/training?
3. To what extent does the rural, suburban, and urban status of an area influence the probability of both postsecondary education/training and gaining competitive employment?
4. To what extent does the rural, suburban, and urban status of an area influence the probability of neither postsecondary education/training nor gaining competitively employment?

## 2. Method

### Population Sample and Data Sources

Data for this study were obtained from the Kentucky's Youth One Year Out (YOYO) Survey from the 2011-2013 reporting years. The Kentucky Department of Education, along with the Human Development Institute at the University of Kentucky, granted permission to use the data provided in the aggregated format

### Instrumentation/Measures/Protocols

The YOYO Survey was designed by the Kentucky Department of Education/Division of Learning Services (KDE/DLS) to address the Federal Department of Education requirement that special education departments follow up with students who had Individual Education Plans (IEP) to determine whether they are enrolled in postsecondary education, employed, both employed and in postsecondary education, or neither employed nor in postsecondary education. The Western Kentucky University Human Subjects Research Review Board approved the use of the aggregated data provided by the Kentucky Postsecondary Outcome Study (KyPSO) that was obtained through their survey. In the initial survey, students were contacted by an employee from the secondary institution from which they exited in the spring of the year following their graduation or exit. The survey asked a variety of questions including current educational status, employment status, and information on the quality of life since leaving the secondary institution. Choices included working for pay, working without pay, enrolled in postsecondary training/education, or not enrolled in postsecondary training/education.

#### 2.1 Procedures

The Kentucky Department of Education and the Human Development Institute of the University of Kentucky were contacted to obtain permission to use the data from the YOYO survey, as the survey is a live, online intelligent survey with branching logic. Access to the survey is available only to the interviewers for the short window during which the survey is to be conducted. Each interviewer participates in an annual training to ensure their status as a standardized interviewer. The contact from the Human Development Institute of the University of Kentucky requested the research questions, then used the questions to create Table 1 which is presented in aggregated format.

Table 1: *Aggregated Data Supplied from KY Postsecondary Outcome Center*

2013	Dropout	General Diploma	Certificate/Aged Out	Competitively Employed	School	Both	Neither
Rural <i>N=862</i>	6.73% 58	83.53% 720	9.76% 84	41.88% 361	30.05% 259	12.00% 112	40.95% 353
Urban <i>N=1107</i>	7.14% 79	79.77% 883	13.09% 145	47.70% 528	40.47% 448	19.15% 212	30.53% 338
Suburban <i>N=635</i>	10.24% 65	80.79% 513	8.97% 57	46.77% 297	26.93% 171	12.60% 80	38.43% 244
Statewide	7.76% 202	81.26% 2116	9.91% 258	45.55% 1186	33.72% 878	15.51% 404	35.91% 935
2012	Dropout	General Diploma	Certificate/Aged Out	Competitively Employed	School	Both	Neither
Rural <i>(n=853)</i>	6.79% 58	83.61% 714	9.6% 82	44.15% 377	29.78% 254	11.71% 100	37.47% 320
Urban <i>(n=1257)</i>	7.95% 100	78.38% 986	13.67% 172	45.95% 578	41.21% 518	19.48% 245	32.19% 405
Suburban <i>(n=626)</i>	6.55% 41	82.27% 515	11.18% 70	52.08% 326	27.64% 173	14.7% 92	34.82% 218
Statewide	7.27% 199	80.9% 2215	11.83% 324	46.79% 1281	34.54% 945	15.96% 437	34.44% 943
2011	Dropout	General Diploma	Certificate/Aged Out	Competitively Employed	School	Both	Neither
Rural <i>(n=867)</i>	4.96% 43	85.47% 741	8.19% 71	39.1% 339	23.99% 208	7.38% 64	44.18% 383
Urban <i>(n=977)</i>	6.14% 60	80.14% 783	13.41% 131	36.71% 359	31.12% 304	11.15% 109	43.25% 423
Suburban <i>(n=621)</i>	6.6% 41	84.38% 524	8.54% 53	39.39% 245	22.54% 140	8.2% 51	45.82% 285
Statewide	5.84% 144	83.08% 2048	10.34% 255	38.22% 943	26.45% 652	9.08% 224	44.22% 1091

Note: Total number students reported in parentheses. Dropout= exited school by dropping out; General Diploma= exited earning a general education diploma; Certificate/Aged Out= student exited from school earning a certificate of completion due to non-credit earning school path that is designed for students with moderate to severe disabilities; Competitively Employed= employed at a job with competitive wages and benefits; School = enrolled in either a training program or school beyond 12<sup>th</sup> grade; Both = both employed and school; Neither= neither employed nor in school.

Table 2 provides the statistics for all three years combined and divided by the postsecondary outcome and the geographic classification. The frequency, percentage, row percentage and column percentage indicate that the data are complete and free of any problem cells. The population of students with a postsecondary outcome of competitive employment from rural was 758, suburban was 609, and urban was 854; totaling 2221 and representing 28.55 percent of the students in the entire study population. The number of students with a postsecondary outcome status of school or training was 1536, representing 19.74% of the total population sample. Of the total population, 1185 students, or 15.23% reported a postsecondary outcome status of both competitive employment and school or training. A total of 2838 students, or 36.48% indicated they were neither competitively employed nor enrolled in school or training programs. The total population sample consisted of 7780 students, with 100% total for both row and column categories.

Table 2: *Descriptive Statistics Postsecondary to Geographic Classification*

	Rural	Suburban	Urban	Total	
Comp Employed	F	758.00	609.00	854.00	2221.00
	P	9.74	7.83	10.98	28.55
	RP	34.13	27.42	38.45	
	CP	29.49	32.46	25.61	
School		483.00	287.00	766.00	1536.00
		6.21	3.69	9.85	19.74
		31.45	18.68	49.87	
		18.79	15.30	22.98	
Both		317.00	258.00	610.00	1185.00
		4.07	3.32	7.84	15.23
		26.75	21.77	51.48	
		12.33	13.75	18.30	
Neither		1012.00	722.00	1104.00	2838.00
		13.01	9.28	14.19	36.48
		35.66	25.44	38.90	
		39.38	38.49	33.11	
Total		2570.00	1876.00	3334.00	7780.00
		33.03	24.11	42.85	100.00

Note. F = Frequency; P = Percent; RP = Row Percent; CP = Column Percent; Comp Employed = employed at a job with competitive wages and benefits; School = enrolled in either a training program or school beyond 12<sup>th</sup> grade; Both = both employed and school; Neither = neither employed nor in school.

## 2.2 Data Analysis

A chi-square ( $\chi^2$ ) statistical test was applied to determine whether a relationship between geographic classifications of areas and each variable for the following categories existed: (a) dropout exit status, (b) earned a general diploma exit status, (c) earned a certificate/aged out exit status, (d) enrolled in postsecondary training, (e) competitively employed, (f) both competitively employed and enrolled in postsecondary training, and (g) neither employed nor enrolled in postsecondary training. This analysis was conducted on three consecutive years of data. The chi-square ( $\chi^2$ ) statistical test was conducted to determine the association between each of the variables for all of the years 2011-2013 combined. A positive significant relationship in the statistical test indicates a significant influence between the rural to urban classification and the postsecondary outcome status of individuals and student exit status.

## 3. Results

The analysis of the data served to determine whether the method of exit from high school and or the geographic classification of school can influence the postsecondary outcome one year after exiting high school. A pattern that was present across the data revealed that a large population of students who exited from school by earning a certificate indicated that they were in the category of neither employed nor in school one year after graduation.

Another interesting pattern was the higher percent of students from rural and suburban areas in the neither employed nor school category when compared to schools from urban areas. In all geographic areas, students who exited high school by dropping out reported a higher percentage in the category of neither employed nor in school than the other postsecondary outcome categories. The chi square ( $\chi^2$ ) analysis revealed a significant difference between categories.

Because the computed value of Pearson's Chi Square 114.2690 exceeds the value in the table, for  $p=.0001$  and  $df = 6$ , we can reject the null hypothesis and accept the research hypotheses that a relationship exists between post secondary outcomes for students with disabilities and their geographic location. Other factors from the environment are impacting the outcome for students with disabilities from the three geographic classifications. The method of exit from high school strongly impacts the postsecondary outcome category, as well as the geographic classification of the school. No support system addresses the impact of geographic classification for students with disabilities who exit high school. As a result, more students fall into the last category of neither employed nor school. They are unemployed and lack the training needed to remedy the unemployment status.

Table 3 contains a comparison of the postsecondary outcome status and geographic classification. A chi-square ( $\chi^2$ ) analysis was performed to determine the existence of a significant difference between the comparison groups. As presented in table 4, the results indicate a significant relationship between postsecondary outcome status and geographic classification for 2011-2013,  $p < .05$ .

Table 3: *Relationship of Postsecondary Outcome to Geographic Classification*

Statistic	DF	Value	Prob
Chi-Square	6	114.2690	.0001
Likelihood Ratio Chi-Square	6	114.8882	.0001
Mantel-Haenszel Square	Chi- 1	0.6202	0.4310
Phi Coefficient		0.1212	

Table 4 provides data for all three years across all geographic classification areas and presents the exit status of students from each year and geographic classification and the postsecondary outcome status. In 2011, the category of neither competitively employed nor enrolled in school (neither) revealed that 39.30% exited from rural geographic areas, 41.91% from suburban, and 36.86% from urban. The average row percent for the neither category was 38.99%, indicating individuals graduating from urban geographic area schools were less likely to fall into the neither category. This same trend repeated for years 2012 and 2013. The 2011-2013 data revealed that students from rural and urban area schools reported a higher percentage in the competitive employment category than the average for the year. Students from urban areas reported less than the average for the year. The opposite is true for the postsecondary status of enrolling in school or training. This relationship indicates that students from urban area schools were more likely to seek training or school once exiting high school when compared to peers exiting schools from rural and suburban areas.

**Table 4: 2011-2013 Combined Data for All Categories and Postsecondary Outcome**

				Comp. Empl.		School/Training		Both Empl. And School		Neither Empl. Nor School		All
Year	Area	Exit	<i>n</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN
2011	Rural	Diploma	219	29.55	167	22.54	100	13.50	255	34.41	741	100
		Certificate	6	8.45	9	12.68	1	1.41	55	77.46	71	100
		Drop	7	16.28	6	13.95	4	9.30	26	60.47	43	100
		All	232	<b>27.13</b>	182	<b>21.29</b>	105	12.28	336	<b>39.30</b>	855	100
	Suburban	Diploma	146	27.86	102	19.47	81	15.46	195	37.21	524	100
		Certificate	5	9.43	6	11.32	1	1.89	41	77.36	53	100
		Drop	7	17.07	7	17.07	4	9.76	23	56.10	41	100
		All	158	<b>25.57</b>	115	<b>18.61</b>	86	13.92	259	<b>41.91</b>	618	100
	Urban	Diploma	180	22.99	217	27.71	148	18.90	238	30.40	783	100
		Certificate	11	8.40	31	23.66	2	1.53	87	66.41	131	100
		Drop	14	23.33	9	15.00	3	5.00	34	56.67	60	100
		All	205	<b>21.05</b>	257	<b>26.39</b>	153	15.71	359	<b>36.86</b>	974	100
		All 2011	595	<b>24.32</b>	554	<b>22.64</b>	344	14.06	954	<b>38.99</b>	2447	100
2012	Rural	Diploma	257	35.99	140	19.61	97	13.59	220	30.81	714	100
		Certificate	5	6.10	9	10.98	-	-	68	82.93	82	100
		Drop	15	25.86	5	8.62	3	5.17	35	60.34	58	100
		All	277	32.44	154	18.03	100	11.71	323	37.82	854	100
	Suburban	Diploma	214	41.55	69	13.40	87	16.89	145	28.16	515	100
		Certificate	6	8.57	12	17.14	-	-	52	74.29	70	100
		Drop	14	34.15	-	-	5	12.20	22	53.66	41	100
		All	234	37.38	81	12.94	92	14.70	219	34.98	626	100
	Urban	Diploma	290	29.41	221	22.41	224	22.72	251	25.46	986	100
		Certificate	13	7.56	38	22.09	8	4.65	113	65.70	172	100
		Drop	30	30.00	14	14.00	13	13.00	43	43.00	100	100
		All	333	26.47	273	21.70	245	19.48	407	32.35	1258	100
		All 2012	844	30.83	508	18.55	437	15.96	949	34.66	2738	100
2013	Rural	Diploma	233	32.41	128	17.80	105	14.60	253	35.19	719	100
		Certificate	6	7.14	13	15.48	-	-	65	77.38	84	100
		Drop	10	17.24	6	10.34	7	12.07	35	60.34	58	100
		All	249	28.92	147	17.07	112	13.01	353	41.00	861	100
	Suburban	Diploma	196	38.43	76	14.90	79	15.49	159	31.18	510	100
		Certificate	6	10.53	7	12.28	-	-	44	77.19	57	100
		Drop	15	23.08	8	12.31	1	1.54	41	63.08	65	100
		All		34.34	91	14.40	80	12.66	244	38.61	632	100
	Urban	Certificate	15	10.34	27	18.62	1	0.69	102	70.34	145	100
		Drop	18	23.68	9	11.84	8	10.53	41	53.95	76	100
		All	316	28.68	236	21.42	212	19.24	338	30.67	1102	100
			All 2013	782	30.13	474	18.27	404	15.57	935	36.03	2595
Total for All Years			2221	28.55	1536	19.74	1185	15.23	28.38	36.48	7780	100

Note. - indicates a population of zero; Diploma = exited earning a general education diploma; Certificate/Aged Out = student exited from school earning a certificate of completion due to non credit earning school path that is designed for students with moderate to severe disabilities; Drop = exited school by dropping out; All = all methods of exiting high school combined; Comp Empl = employed at a job with competitive wages and benefits; School/training = enrolled in either a training program or school beyond 12<sup>th</sup> grade; Both Empl and School = both employed and school; Neither Empl nor School = neither employed nor in school.

Table 5 consists of combined data for the three years in this study without regard for the student's method of exit from high school. Students exiting from high school were more likely to fall into the "neither employed nor school" category than any other, as evidenced by a row percentage of 33% or higher. The urban school district percentage of 33.11 was lower than the overall average of 36.48%. Rural and suburban school districts were above the overall average. The category that held the next highest percentage for all geographic classifications is the Competitive Employment category with an overall average of 28.55%. Both rural and urban districts were higher than the average, and the urban districts fell below the average, with 25.61%. Another key difference in the data between geographic classifications was the school/training category and the both employed and school category. Both were above the overall average, which accounts for the almost 3% differences in the competitive employment category and neither employed nor school category. Graduates from suburban areas were more likely to obtain competitive employment.

**Table 5: Geographic Classification and Postsecondary Outcome for Combined 2011-2013 Years**

Area	Comp Empl		School/ Training		Both Empl and School		Neither Empl nor School		Empl All	
	<i>n</i>	Row PctN	<i>N</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN
Rural	758	<b>29.49</b>	483	18.79	317	12.33	1012	<b>39.38</b>	2570	100
Subur	609	<b>32.46</b>	287	15.30	258	13.75	722	<b>38.49</b>	1876	100
Urban	854	<b>25.61</b>	766	<b>22.98</b>	610	<b>18.30</b>	1104	<b>33.11</b>	3334	100
All	2221	<b>28.55</b>	1536	19.74	1185	15.23	2838	<b>36.48</b>	7780	100

Note. Comp Empl = employed at a job with competitive wages and benefits; School/training = enrolled in either a training program or school beyond 12<sup>th</sup> grade; Both Empl and School = both employed and school; Neither Empl nor School = neither employed nor in school; Subur = suburban; Row PctN = row percent; *n* = total number reported.

Table 6 provides the same information but includes the methods of exit from high school. Across all three geographic classifications, students who exited with certificates of completion or dropout were more likely to fall into the neither employed nor school category. When the diploma method of exit was examined and compared across geographic classifications for the neither employed nor school category, rural was 33.49%, suburban was 32.21%, and Urban was 25.81%. Graduates earning a diploma from rural and suburban school districts were significantly more likely to fall into the neither employed nor school category than those earning a diploma from urban school districts. In contrast, graduates earning a diploma from rural and suburban school districts were significantly more likely to gain competitive employment than those from urban school districts. Students who exited with a diploma from urban school districts are significantly more likely to enroll in postsecondary school or training than suburban school district diploma graduates.

**Table 6: Geographic Classification with Method of Exit and Postsecondary Outcome**

Area	Comp Empl		School/ Training		Both Empl and School		Neither Empl nor School		All		Row PctN
	Exit	<i>n</i>	PctN	<i>n</i>	PctN	<i>n</i>	PctN	<i>n</i>	PctN	<i>n</i>	
Rural	Diplo	709	32.61	435	20.01	302	13.89	728	<b>33.49</b>	2174	100
	Certif	17	7.17	31	13.08	1	0.42	188	<b>79.32</b>	237	100
	Drop	32	20.13	17	10.69	14	8.81	96	<b>60.38</b>	159	100
	All	758	29.49	483	18.79	317	12.33	1012	<b>39.38</b>	2570	100
Subur	Diplo	556	35.89	247	15.95	247	15.95	499	<b>32.21</b>	1549	100
	Certif	17	9.44	25	13.89	1	0.56	137	<b>76.11</b>	180	100
	Drop	36	24.49	15	10.20	10	6.80	86	<b>58.50</b>	147	100
	All	609	32.46	287	15.30	258	13.75	722	<b>38.49</b>	1876	100
Urban	Diplo	753	28.42	638	24.08	575	21.70	684	<b>25.81</b>	2650	100
	Certif	39	8.71	96	21.43	11	2.46	302	<b>67.41</b>	448	100
	Drop	62	26.27	32	13.56	24	10.17	118	<b>50.00</b>	236	100
	All	854	25.61	766	22.98	610	18.30	1104	<b>33.11</b>	3334	100
Totals		2221	28.55	1536	19.74	1185	15.23	2838	<b>36.48</b>	7780	100

Note. Diplo = exited earning a general education diploma; Certif = student exited from school earning a certificate of completion due to non credit earning school path that is designed for students with moderate to severe disabilities; Drop = exited school by dropping out; All = all methods of exiting high school combined; Comp Empl = employed at a job with competitive wages and benefits; School/training = enrolled in either a training program or school beyond 12<sup>th</sup> grade; Both Empl and School = both employed and school; Neither Empl nor School = neither employed nor in school; Row PctN = row percent; *n* = total number reported..

Table 7 contains data for the method of exit only and the postsecondary outcome for students who exited high school for the combined three years of the study. The school districts' geographic classification was not examined. Overall, the students who exited high school with a diploma represented the highest percentage for the competitive employment, school/training, and both competitive employment outcome categories. Students who exited with a certificate of completion represented the highest percentage of neither competitive employment nor school/training. Students who exited by dropout means were second in the category for neither competitive employment nor school/training.

Table 8 presents the data for each individual year and the postsecondary outcome. Data from 2011 differs significantly from years 2012 and 2013 when examining the overall percentage against each postsecondary outcome category. The first year that data was collected using the current method was 2011. The data from 2012 and 2013 is consistent with the overall percentage for all categories of postsecondary outcome.



**Table 7: 2011-2013 Combined Method of Exit and Postsecondary Outcome**

Exit	Comp Empl		School/ Training		Both	Empl	Neither	Empl	All	
	<i>n</i>	Row PctN	<i>N</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN
Diplo	2018	31.66	1320	20.71	1124	17.64	1911	29.99	6373	100
Certif	73	8.44	152	17.57	13	1.50	627	72.49	865	100
Drop	130	23.99	64	11.81	48	8.86	300	55.35	542	100
All	2221	28.55	1536	19.74	1185	15.23	2838	36.48	7780	100

Note. Comp Empl = employed at a job with competitive wages and benefits; School/training = enrolled in either a training program or school beyond 12<sup>th</sup> grade; Both Empl and School = both employed and school; Neither Empl nor School = neither employed nor in school; Row PctN = row percent; *n* = total number reported.

**Table 8: 2011-2013 Postsecondary Outcome**

year	Comp Empl		School/ Training		Both	Empl	Neither	Empl	All	
	<i>n</i>	Row PctN	<i>N</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN	<i>n</i>	Row PctN
2011	595	24.32	554	22.64	344	14.06	954	38.99	2447	100
2012	844	30.83	508	18.55	437	15.96	949	34.66	2738	100
2013	782	30.13	474	18.27	404	15.57	935	36.03	2595	100
All	2221	28.55	1536	19.74	1185	15.23	2838	36.48	7780	100

Note. Comp Empl = employed at a job with competitive wages and benefits; School/training = enrolled in either a training program or school beyond 12<sup>th</sup> grade; Both Empl and School = both employed and school; Neither Empl nor School = neither employed nor in school; Row PctN = row percent; *n* = total number reported.

#### 4. Discussion of Research Questions

**General Research Question A:** To what extent does the exit status of students with disabilities from each of the classifications of rural, suburban, and urban areas influence postsecondary outcomes? The majority of students who exited high school by dropping out are in the category of neither competitively employed nor school for postsecondary outcome. All three classifications of rural, suburban, and urban reported over 50% of the dropout population as neither employed nor in school or training one year after leaving high school. Rural (60.38%) and suburban (58.50%) area students who exit by dropping out were slightly more likely to fall in this category than urban (50.00%) area dropout students.

The highest percentage of students exiting with a diploma from rural area schools were in the category of neither employed nor enrolled in school one year after exiting high school, with 33.49% reported. From suburban area schools, the highest category for postsecondary outcome was the competitive employment category, with 35.9%. The highest postsecondary category for urban area schools was the competitive employment category at 28.42%. If the four categories were evenly split into 25%, this finding would indicate a no significant difference. The percentage of 28.42% is not significantly different than the other three categories. Students from rural and suburban area schools were more likely to be the competitive employment category or the category of neither competitively employed nor school one year after graduating from high school. Students from urban area schools were likely to be in any of the three categories.

Students from this study who exited high school by earning a certificate are most likely to be in the category of neither competitive employed nor school one year after exiting high school. Certificate earning graduates from rural areas reported 79.32%, suburban areas reported 76.11%, and urban areas reported 67.41% in the neither competitively employed nor school category.

While all three classification areas are highest in the same category, students earning a certificate from urban area schools still fared better than those from rural or suburban area schools. This is not that surprising of a finding given that students earning a certificate are typically identified with a more severe disability,

**General Research Question B:** To what extent does the classification as rural, suburban, and urban of an area influence the postsecondary outcomes for students with disabilities?

Students with disabilities who graduated from any of the three classifications were more likely to fall in the category of neither than any other category. Educators refer to this as “graduated to the couch.” While some cases occur in which a student’s physical and/or mental health makes the possibility of employment or school unrealistic, that population is extremely low when discussing students with disabilities in general. Students from urban area schools are much more likely to be enrolled in school or training one year after exit from high school than students from rural or suburban schools.

## 5. Significance of the Study

Research illustrates that many differences exist between rural and urban school districts (Pennington et al., 2009). Research also is available that explores the postsecondary outcome of students from rural and urban schools, although without an emphasis on students with disabilities. This study is significant, in that it examines students with disabilities one year after exit from Kentucky high schools from rural, suburban, and urban geographic classification areas.

The results from this study indicate that students with disabilities from rural and suburban areas do not fare as well as those with disabilities from urban areas. As a special education teacher in rural schools for 16 years, I have learned that not all of the blame can fall on the school system. At times the parents do not wish for their child to enter the workforce or school after high school. For example, many families are in fear of losing the financial supports they currently receive by accessing any other agencies or employment. Also impacting the postsecondary outcome for individuals who live in rural areas are the additional disadvantages that are not seen for those who live in urban areas. The post high school agencies such as vocational rehabilitation, supported employment, community living, and other support programs may not be local, which may require the need for reliable transportation, also indicating a need for income. This results in an unbroken circle, in which one need cannot be met without the other. Public transportation may not be available to allow access to agencies, employment, and training. A third disadvantage for rural communities is the decrease in annual family income when compared to the annual income of those from non-rural areas. Last, the amount of available jobs in the rural community is significantly lower than in urban areas, as fewer businesses are physically located within rural communities. In addition, unemployment is increasing and the specific population of this study has a documented disability. Therefore, the opportunity to gain employment is negatively impacted by the rural geographic classification.

## 6. Limitations of the Study

Some limitations were noted for this study, although they may or may not impact the data. Kentucky has only one major urban area; therefore, data may not be comparable to states with multiple metropolitan areas. A second limitation is the data set used by the Kentucky Youth One Year Out, (YOYO) from the Kentucky Postsecondary Outcomes to determine postsecondary success. The YOYO data are based on self-reports from interviews; however, a lack of representation can be found relative to dropouts, students who left no further contact information, and individuals who have moved or changed their contact information within the one year after exiting high school. Other variables not explored in this study that may impact postsecondary outcomes for students identified with disabilities include, but are not limited to, the availability of resources and training programs, average annual family income, employment rates, and average level of education.

## 7. Implications for Policy and Practice

This research on the postsecondary outcome status for students with disabilities in relation to the geographic classifications of school districts is original, as it brings light to an under explored variable that hinders the success rate for students with disabilities in Kentucky’s rural schools. New information from this study can be applied, not only in the state of Kentucky, but it could potentially be beneficial across the nation if replicated in other states. It is hoped that the results of this study with the original data source, the Kentucky Post Secondary Outcome Study, can be used to guide policy and procedure planning and funding school districts across Kentucky and beyond.

Support and funding are areas in need of exploration to determine whether an increase in postsecondary planning, training, and resources for rural areas may counteract the barriers that are rooted in the geographic classification as rural.

Additional funding can be applied to provide public transportation grants for rural communities, which will provide better access to postsecondary education, training, agency supports, and employment opportunities. Individuals on a medical card for insurance can use their medical cards to obtain transportation to medical appointments. The same can be applied for transportation to agencies, training, and employment sites. If something is not done to provide students with transportation, there is very little that can be done at the educational level to increase the positive postsecondary outcome for students with disabilities in rural areas. Finally, federal guidelines are needed for those agencies that support students after high school and require their involvement in the student planning and interventions prior to the high school exit year. These federal guidelines also need to require accessible sites for agencies within each community at least one full day each week for ease of access. In most rural communities the nearest agency is at least thirty minutes away by vehicle. Because students with disabilities are much less likely to obtain a driver's license, many choose not to even attempt to get their license either because they cannot afford a car or their parents may not have access to a car. Addressing the barriers may ease the transition from high school to the adult world and foster the relationships needed for success.

Rural area schools can use additional funding to boost postsecondary opportunities. Job coach programs could provide more opportunities for students to job shadow and gain interview and other soft skills that are not taught in the regular instructional day. The funding could allow for districts to provide busing to other non-rural areas for job shadowing and technical training programs. Additional funding also may be used to add more local agencies that provide an array of services for rural communities to both educate parents and support them through this process. This research provides Kentucky's policymakers with insight into factors that can be explored to improve the postsecondary outcome rates for students with disabilities from rural areas in Kentucky.

## **8. Recommendations for Further Research**

Recommendations for further research include a comparison of the students with disabilities to those without disabilities who exit high school using the same data. Metrics for students without disabilities is collected in a different format than the data analyzed for this study. The collection of data for both populations in this manner could provide insight into whether this issue is unique to students with disabilities from rural area schools in Kentucky, or whether the pattern is the same for general education students without disabilities. An additional interesting area for further research could involve an examination of the similarities between rural and suburban school districts, as both indicate similar results in this study for postsecondary outcomes of students with disabilities. A qualitative form of research could yield information that might provide insight into the reasons that these two areas are significantly different in terms of postsecondary outcomes when compared to students with disabilities from urban areas.

A third research recommendation would involve an investigation into the differences in program planning, monetary allotment, service delivery, and other factors that are applied in each of the three geographic classifications to determine the methods utilized by urban area schools that rural and suburban schools have not implemented. This could provide valuable insight into programs that can be implemented to negate these differences for rural and suburban schools. A fourth research recommendation of interest includes replicating the study once the College and Career Readiness (CCR) initiative has been fully implemented in Kentucky to determine whether the CCR initiative can negate the differences found within this study. If these same significant differences are found in the replicated study it will further support the need for new program implementations and the need for policy changes.

A final recommendation for further research is to replicate this study in other states to determine whether this problem is unique to KY or, as is believed, is a national concern. If it is a national issue, federal policy and procedures can be developed to address the issue. Other questions that have arisen as a result of this study: Does gender play a role in postsecondary outcomes? Is this one more level of the puzzle? Could generational poverty factor in to the results? What is the family structure of the students' homes from each of the three geographical locations and does that play a role? Is urban area data being used as a primary source of information for decision making? Are there experience gaps for students in rural communities that are not present in urban communities?

## 9. Conclusion

The purpose of this study was to determine the relationship between an area's geographic classification and the postsecondary outcome status for students with disabilities in Kentucky. It was believed that students with disabilities from rural areas in Kentucky do not fare as well as those from urban area schools. The results support this belief. A significant relationship was found between the geographic location of a school district and the postsecondary outcome for students with disabilities in Kentucky. When compared with those who exit from urban school areas, schools in rural areas have a higher percentage of students in the neither category, which indicates that they are not enrolled in a postsecondary training and are unemployed. Results also were similar for suburban areas.

Becoming a successful contributor and consumer to society is the ultimate goal for all youth as they exit high school. The findings of this study provide significant implications relative to planning for postsecondary outcomes for students with disabilities from rural area school districts. The findings will aid policymakers in engaging in discussions to determine programs and supports that can be implemented to negate the disadvantages that impact the postsecondary outcome for youth with disabilities in rural Kentucky. A College and Career readiness component has been added to the Kentucky Performance Rating for Educational Progress tests to ensure that students exit high school with the skills needed to enter college or a career (<http://education.ky.gov>). This should be taken a step further to better equip students with disabilities from rural areas with the skills necessary to gain successful postsecondary outcomes through additional funding and supports. While the findings of this study are specific to Kentucky, given the similarities of Kentucky's rural, suburban, and urban areas to those across the nation in terms of population, industry, and community services available, it is believed that the significance of these results, in part, may be generalized to other states and regions.

## References

- Clasemann, C. (2012). *A multi-level, ordinal, logistic regression analysis of rural high school graduates' postsecondary enrollment patterns* (Doctoral dissertation). Indiana University, IN. Retrieved from <http://search.proquest.com.libsrv.wku.edu/docview/1312344332/13F7D0DDCD23A34A693/1?accountid=15150>
- Karpinski, M. J., Neubert, D. A., & Graham, S. (1992, June/July). A follow-along study of postsecondary outcome for graduates and dropouts with mild disabilities in a rural setting. *Journal of Learning Disabilities, 25*(6), 376-385. Retrieved from <http://ldx.sagepub.com/>
- Marshall, A., Powell, N., Pierce, D., Nolan, R., & Fehringer, E. (2012, March/April). Youth and administrator perspectives on transition in Kentucky's state agency schools. *Child Welfare, 91*(2), 95-116. Retrieved from [www.cwla.org](http://www.cwla.org)
- O'Connor, S. C., & Spreen, O. (1988, March). The relationship between parents' socioeconomic status and education level and adult occupational and educational achievement of children with learning disabilities. *Journal of Learning Disabilities, 21*, 148-153. Retrieved from <http://ldx.sagepub.com/>
- Pennington, R., Horn, C., & Berrong, A. (2009). An evaluation of the difference between big city and small town special education services for students with low incidence disabilities in Kentucky. *Rural Special Education Quarterly, 28*(4), 3-9. Retrieved from <http://acres-sped.org/journal>
- Roscigno, V. J., & Crowley, M. L. (2001). Rurality, institutional disadvantage, and achievement/attainment. *Rural Sociology, 66*, 268-292. doi: 10.1111/j.1549-0831.2001.tb00067.x
- Roscigno, V. J., Tomaskovic-Devey, D., & Crowley, M. (2006, June). Education and the inequalities of place. *Social Forces, 84*(4), 2121-2145. Retrieved from <http://sf.oxfordjournals.org/>
- Samel, A. N., Sondergeld, T. A., Fischer, J. M., & Patterson, N. C. (2011). *The secondary school pipeline: Longitudinal indicators of resilience and resistance in urban schools under reform* (Doctoral dissertation). Bowling Green University, OH. Available from ProQuest Dissertation and Theses database.
- Stanley, L. R., Comello, M. L., Edwards, R. W., & Marquart, B. S. (2007, May 10). School adjustment in rural and urban communities: Do students from "Timbuktu" differ from their "City Slicker" peers? *J Youth Adolescence, 37*, 225-238. doi:10.1007/s10964-007-9180-8
- Ulrich, J. D. (2011). *Education in chronically poor rural areas lags across generations* [Issue brief]. Retrieved from [www.carseyinstitute.unh.edu](http://www.carseyinstitute.unh.edu): <http://www.carseyinstitute.unh.edu/publications/IB-Ulrich-Education-Poor-Areas.pdf>