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City-County Separation and Consolidation in the United States: The Impact on Urban Growth

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CITY-COUNTY SEPARATION: ADVANTAGES AND DISADVANTAGES

As of 2002, governmental units in the United States consisted of a federal government, fifty state governments and 87,525 local governments.[1] Of these local governments, 3,034 county governments manage activities of statewide concern at the local level. The basic functions of the counties include property tax assessment and collection, law enforcement, elections, and road maintenance, along with record keeping of land transactions, births and deaths, and so on. In addition to these traditional functions, the responsibilities of county governments are expanding to include health care management, hospitals, pollution control, mass transit, industrial development, social services, and consumer protection.

Like the counties, cities, interchangeably known as municipalities, are general purpose units of local governments, and according to the 2002 Census of Governments, there are 19,429 municipalities in the United States. However, in terms of the relationship with state governments, municipal governments are more self-governing than county governments. As compared with counties, which are expected to complement the administrative activities of state governments, cities have greater decision-making authority and

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discretion, with more powerful elected officials in both the executive and the legislative branches.

Since there are so many small local jurisdictions in the United States, it has often been argued that the consolidation of a county and proximate municipalities into a single countywide government would better serve the areawide administrative needs of residents across fragmented jurisdictions. Nevertheless, the responses of voters to city-county consolidation proposals are usually less than positive. During the 1990s, when a number of consolidation plans were proposed, voters rejected the merger of Des Moines and Polk County, Iowa; Spokane and Spokane County, Washington; and Knoxville and Knox County, Tennessee.[2] As of 2006, the number of completely consolidated governments in the United States was not more than eleven.[3] The list includes Anchorage, Alaska; San Francisco, California; Denver, Colorado; Kansas City, Kansas; and Honolulu, Hawaii.

In contrast to these proposed city-county consolidations, of the fifty American states, Virginia is the only state with a statewide practice of city-county separation. In the state of Virginia, all cities are completely independent of their neighboring counties with regard to territory, population, tax base, service authority, and so on.[4] Jack D. Edwards summarizes the advantages and disadvantages of city-county separation as follows.[5] The advantages of this system are (1) clear-cut lines of responsibility, (2) simplicity in tax and governmental structures, and (3) limit on the number of governments. He discusses the following disadvantages: (1) the probability of duplication in public services, especially in the case of small cities and adjacent counties, (2) disincentive to county-city cooperation, and (3) the tax base competition between counties and cities. The issue of tax base after city annexation is particularly important. In many cases of annexation in other states, there is no change in the ability of the county to tax all the citizens and maintain its services. However, in Virginia, due to the city-county separation, the entire tax base that is annexed by a city is subtracted from the county. As a result, the relationship between cities and counties tends to be competitive and contentious.[6]

S. J. Malenski discusses the advantages of city-county consolidation in contrast to city-county separation on the basis of these cases.[7] The first advantage is the reduction of the abovementioned intergovernmental conflicts. The second is the broadening of the revenue base. The third advantage is long-range regional planning and problem solving. The fourth is the recognition of the communities of interest. The fifth is the so-called "economies of scale," and the last advantage he suggests has to do with general economic

benefits.

Although the advantages and disadvantages of both independent and consolidated cities have been discussed by state and local politicians, there is little empirical research to assess the validity of these assertions. What kind of impact do the differences in the types of cities have on policy outputs? This paper explores the relationships between some of the socioeconomic indicators and the types of cities (independent/consolidated/other, usual cities) based on 195 cities in the United States, each with a population greater than 100,000. Through this statistical analysis, I would like to attempt to explain the impact of city-county separation – which is one of the most important factors that structure urban policies in Virginia – in quantitative terms, by comparing with cases of consolidated cities.

A STATISTICAL ANALYSIS OF THE IMPACT OF CITY-COUNTY SEPARATION

To what extent do the socioeconomic indicators differ between independent cities and non-independent cities? By using the data compiled in the County and City Data Book 1994, first of all, I would like to compare the means of population change (percent), median household income percent change, poverty population percentage, retail trade sales percent change, crime rate, unemployment rate, and housing ownership rate among independent, consolidated, and other cities.[8]

Of the 195 cities with a population greater than 100,000 in 1990, ten were independent cities (eight cities in Virginia, plus St. Louis, and Baltimore), and fourteen were consolidated city-county governments. Six cities in the data-set are ones that have no county government.[9]

Table 1 displays the mean differences of each variable among different types of cities. As for the median income change, both independent cities and consolidated cities show a higher mean than conventional dependent cities. The mean of consolidated cities in this indicator is slightly greater than that of independent cities. With regard to the population change, dependent cities show a higher mean than both independent and consolidated cities. In terms of population change, consolidated cities rank the lowest among all types of cities. As for the percentage of poverty population, the difference of the means of these three types of cities appears to be negligible. Standard deviations of this variable remain slightly above 5, while most of the standard deviations of the other variables exceed 20, except for the unemployment rate and owner occupancy rate.

Table 1

		N	Means	Standard Deviation
INCCHANG	INDEP	10	80.7700	9.4443
	CONSO	14	82.3286	23.5828
	OTHER	162	74.9840	21.6166
POPCHAN	INDEP	10	11.2000	24.4241
	CONSO	14	6.5929	13.1856
	OTHER	164	18.4085	25.9179
POVFAMIL	INDEP	10	12.2800	5.7913
	CONSO	14	13.1286	5.8551
	OTHER	164	11.9994	5.9620
RSALECHA	INDEP	10	53.0200	22.7168
	CONSO	14	39.9286	20.0392
	OTHER	158	44.9101	24.8725
CRIMERAT	INDEP	10	8989.40	3343.22
	CONSO	14	8595.93	2146.19
	OTHER	164	8428.15	3601.84
UNEMPLOY	INDEP	10	6.8500	1.4759
	CONSO	14	5.8571	1.7701
	OTHER	164	6.7476	2.4463
OWNEROCC	INDEP	10	52.5100	10.0422
	CONSO	14	48.5571	10.6087
	OTHER	164	54.0085	9.7469

Independent cities show more significant changes in retail sales than do other types of cities. For this variable, the mean of consolidated cities is lower than that of dependent cities. As for the crime rate, the mean of independent cities is higher than that of consolidated and other cities. The difference of the means in unemployment appears to be insignificant between independent and other cities, while consolidated cities show the lowest mean among all the types of cities. Finally, among these three types of cities, consolidated cities show the lowest rate of housing ownership. For independent cities, the rate of housing ownership is lower than that of other cities, but higher than that of consolidated cities.

The result of a t-test of the dependent and non-dependent cities samples in Table 2 reveals that the two-tailed significance levels of income change, population change, and housing ownership rate are low enough to reject the null hypothesis. The two-tailed significance levels are not low enough to prove that two population variances are significantly different; however, we can observe that while independent cities appear to show greater population and retail sales growth than consolidated cities, they also show a higher crime

rate and unemployment rate. It might be possible to assume that independent cities appear to be economically more successful than consolidated cities; however, socially speaking, they show more problems than consolidated cities.

Table 2

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Mean	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
INCCHANG	Equal variances assumed	.572	.450	2.833	191	.005	11.8709	4.1899	3.6065	20.1353
	Equal variances not assumed			2.986	44.475	.005	11.8709	3.9757	3.8609	19.8809
POPCHAN	Equal variances assumed	9.543	.002	-2.505	193	.013	-12.1247	4.8404	-21.6716	-2.5777
	Equal variances not assumed			-3.346	61.054	.001	-12.1247	3.6238	-19.3707	-4.8787
POVFAMIL	Equal variances assumed	.011	.918	1.075	193	.284	1.2554	1.1674	-1.0471	3.5580
	Equal variances not assumed			1.076	42.167	.288	1.2554	1.1665	-1.0983	3.6092
RSALECHA	Equal variances assumed	.261	.610	-.016	187	.987	-7.4643E-02	4.7524	-9.4498	9.3005
	Equal variances not assumed			-.018	49.523	.986	-7.4643E-02	4.1432	-8.3985	8.2492
CRIMERAT	Equal variances assumed	.556	.457	1.296	193	.197	889.5311	686.5229	-464.5198	2243.5819
	Equal variances not assumed			1.492	48.900	.142	889.5311	596.1487	-308.5364	2087.5986
UNEMPLOY	Equal variances assumed	.831	.363	.256	193	.798	.1202	.4686	-.8040	1.0444
	Equal variances not assumed			.287	47.206	.776	.1202	.4190	-.7227	.9631
OWNEROCC	Equal variances assumed	1.211	.272	-3.096	193	.002	-6.0569	1.9563	-9.9154	-2.1985
	Equal variances not assumed			-2.813	39.036	.008	-6.0569	2.1529	-10.4114	-1.7025

To examine the relationships among these variables, I would like to use a partial correlation analysis, holding constant the effects of city-county separation (independent cities) and city-county consolidation.

Table 3

Zero Order Partials

	INCCHANG	POPCHAN	POVFAMIL	RSALECHA	CRIMERAT	UNEMPLOY	OWNEROCC	TYPE2
INCCHANG	1.0000 (0) P= .	.2299 (187) P=.001	-.2527 (187) P=.000	.3932 (187) P=.000	-.0621 (187) P=.396	.0314 (187) P=.668	-.3137 (187) P=.000	.0379 (187) P=.605
POPCHAN	.2299 (187) P=.001	1.0000 (0) P= .	-.4407 (187) P=.000	.5618 (187) P=.000	-.2046 (187) P=.005	-.1858 (187) P=.010	.2225 (187) P=.002	-.0553 (187) P=.449
POVFAMIL	-.2527 (187) P=.000	-.4407 (187) P=.000	1.0000 (0) P= .	-.5172 (187) P=.000	.4901 (187) P=.000	.5903 (187) P=.000	-.4755 (187) P=.000	.0048 (187) P=.947
RSALECHA	.3932 (187) P=.000	.5618 (187) P=.000	-.5172 (187) P=.000	1.0000 (0) P= .	-.2528 (187) P=.000	-.3063 (187) P=.000	.1974 (187) P=.006	.0798 (187) P=.275
CRIMERAT	-.0621 (187) P=.396	-.2046 (187) P=.005	.4901 (187) P=.000	-.2528 (187) P=.000	1.0000 (0) P= .	.1862 (187) P=.010	-.3619 (187) P=.000	.0280 (187) P=.702
UNEMPLOY	.0314 (187) P=.668	-.1858 (187) P=.010	.5903 (187) P=.000	-.3063 (187) P=.000	.1862 (187) P=.010	1.0000 (0) P= .	-.2677 (187) P=.000	.0109 (187) P=.881
OWNEROCC	-.3137 (187) P=.000	.2225 (187) P=.002	-.4755 (187) P=.000	.1974 (187) P=.006	-.3619 (187) P=.000	-.2677 (187) P=.000	1.0000 (0) P= .	-.0070 (187) P=.924
TYPE2	.0379 (187) P=.605	-.0553 (187) P=.449	.0048 (187) P=.947	.0798 (187) P=.275	.0280 (187) P=.702	.0109 (187) P=.881	-.0070 (187) P=.924	1.0000 (0) P= .

(Coefficient/(D.F.)/Two-tailed Significance)

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Table 4

Controlling for TYPE 2

	INCCHANG	POPCHAN	POVFAMIL	RSALECHA	CRIMERAT	UNEMPLOY	OWNEROCC
INCCHANG	1.0000	.2325	-.2530	.3917	-.0632	.0310	-.3137
	(0)	(186)	(186)	(186)	(186)	(186)	(186)
	P= .	P= .001	P= .000	P= .000	P= .389	P= .673	P= .000
POPCHAN	.2325	1.0000	-.4412	.5689	-.2034	-.1855	.2224
	(186)	(0)	(186)	(186)	(186)	(186)	(186)
	P= .001	P= .	P= .000	P= .000	P= .005	P= .011	P= .002
POVFAMIL	-.2530	-.4412	1.0000	-.5193	.4902	.5903	-.4755
	(186)	(186)	(0)	(186)	(186)	(186)	(186)
	P= .000	P= .000	P= .	P= .000	P= .000	P= .000	P= .000
RSALECHA	.3917	.5689	-.5193	1.0000	-.2560	-.3082	.1986
	(186)	(186)	(186)	(0)	(186)	(186)	(186)
	P= .000	P= .000	P= .000	P= .	P= .000	P= .000	P= .006
CRIMERAT	-.0632	-.2034	.4902	-.2560	1.0000	.1859	-.3619
	(186)	(186)	(186)	(186)	(0)	(186)	(186)
	P= .389	P= .005	P= .000	P= .000	P= .	P= .011	P= .000
UNEMPLOY	.0310	-.1855	.5903	-.3082	.1859	1.0000	-.2676
	(186)	(186)	(186)	(186)	(186)	(0)	(186)
	P= .673	P= .011	P= .000	P= .000	P= .011	P= .	P= .000
OWNEROCC	-.3137	.2224	-.4755	.1986	-.3619	-.2676	1.000
	(186)	(186)	(186)	(186)	(186)	(186)	(0)
	P= .000	P= .002	P= .000	P= .006	P= .000	P= .000	P= .

(Coefficient/(D.F.)/Two-tailed Significance)

" . " is printed if a coefficient cannot be computed

As Table 3 indicates, type 2, which is a dummy variable that assigns 1 for independent cities and 0 for other types of cities, has no significant correlations with any other variables. Therefore, as indicated in Table 4, if the effect of independent cities is controlled, the correlation coefficients will not be changed substantially. In Table 1, the population change in independent cities is lower than that of other cities. In Table 3, the population change and type 2 variables are negatively correlated (-.0553), although the correlation is not statistically significant.

Table 5

Model Summary[a,b]

Model	Variables Entered	Variables Removed	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	TYPE2[c,d]	.	.049	.002	-.003	25.0838

a. Dependent Variable: POPCHAN
b. Method: Enter
c. Independent Variables: (Constant), TYPE2
d. All requested variables entered.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	16.766	1.844		9.091	.000
	TYPE2	-5.566	8.144	-.049	-.684	.495

a. Dependent Variable: POPCHAN

Table 5 presents a regression using population change as its dependent variable and the dummy for Type 2 (independent cities) as an independent variable. This shows a negative effect on population change by independent cities, although the effect is not statistically significant. This finding seems to correspond with the conventional understanding that since annexation is difficult under the city-county separation system, city-county separation could have a negative effect on population growth.[10]

Table 6

Zero Order Partials

	INCCHANG	POPCHAN	POVFAMIL	RSALECHA	CRIMERAT	UNEMPLOY	OWNEROCC	TYPE3
INCCHANG	1.0000	.2299	-.2527	.3932	-.0621	.0314	-.3137	.0656
	(0)	(187)	(187)	(187)	(187)	(187)	(187)	(187)
	P= .	P= .001	P= .000	P= .000	P= .396	P= .668	P= .000	P= .370
POPCHAN	.2299	1.0000	-.4407	.5618	-.2046	-.1858	.2225	-.1180
	(187)	(0)	(187)	(187)	(187)	(187)	(187)	(187)
	P= .001	P= .	P= .000	P= .000	P= .005	P= .010	P= .002	P= .106
POVFAMIL	-.2527	-.4407	1.0000	-.5172	.4901	.5903	-.4755	.0463
	(187)	(187)	(0)	(187)	(187)	(187)	(187)	(187)
	P= .000	P= .000	P= .	P= .000	P= .000	P= .000	P= .000	P= .527
RSALECHA	.3932	.5618	-.5172	1.0000	-.2528	-.3063	.1974	-.0584
	(187)	(187)	(187)	(0)	(187)	(187)	(187)	(187)
	P= .000	P= .000	P= .000	P= .	P= .000	P= .000	P= .006	P= .425
CRIMERAT	-.0621	-.2046	.4901	-.2528	1.0000	.1862	-.3619	.0018
	(187)	(187)	(187)	(187)	(0)	(187)	(187)	(187)
	P= .396	P= .005	P= .000	P= .000	P= .	P= .010	P= .000	P= .980
UNEMPLOY	.0314	-.1858	.5903	-.3063	.1862	1.0000	-.2677	-.1048
	(187)	(187)	(187)	(187)	(187)	(0)	(187)	(187)
	P= .668	P= .010	P= .000	P= .000	P= .010	P= .	P= .000	P= .151
OWNEROCC	-.3137	.2225	-.4755	.1974	-.3619	-.2677	1.0000	-.1198
	(187)	(187)	(187)	(187)	(187)	(187)	(0)	(187)
	P= .000	P= .002	P= .000	P= .006	P= .000	P= .000	P= .	P= .101
TYPE3	.0656	-.1180	.0463	-.0584	.0018	-.1048	-.1198	1.0000
	(187)	(187)	(187)	(187)	(187)	(187)	(187)	(0)
	P= .370	P= .106	P= .527	P= .425	P= .980	P= .151	P= .101	P= .

(Coefficient/(D.F.)/ Two-tailed Significance)
"." is printed if a coefficient cannot be computed

Table 7

Controlling for TYPE 3

	INCCHANG	POPCHAN	POVFAMIL	RSALECHA	CRIMERAT	UNEMPLOY	OWNEROCC
INCCHANG	1.0000	.2398	-.2565	.3986	-.0623	.0385	-.3087
	(0)	(186)	(186)	(186)	(186)	(186)	(186)
	P= .	P= .001	P= .000	P= .000	P= .396	P= .600	P= .000
POPCHAN	.2398	1.0000	-.4388	.5598	-.2058	-.2006	.2113
	(186)	(0)	(186)	(186)	(186)	(186)	(186)
	P= .001	P= .	P= .000	P= .000	P= .005	P= .006	P= .004
POVFAMIL	-.2565	-.4388	1.0000	-.5159	.4905	.5991	-.4739
	(186)	(186)	(0)	(186)	(186)	(186)	(186)
	P= .000	P= .000	P= .	P= .000	P= .000	P= .000	P= .000
RSALECHA	.3986	.5598	-.5159	1.0000	-.2532	-.3147	.1921
	(186)	(186)	(186)	(0)	(186)	(186)	(186)
	P= .000	P= .000	P= .000	P= .	P= .000	P= .000	P= .008
CRIMERAT	-.0623	-.2058	.4905	-.2532	1.0000	.1874	-.3644
	(186)	(186)	(186)	(186)	(0)	(186)	(186)
	P= .396	P= .005	P= .000	P= .000	P= .	P= .010	P= .000
UNEMPLOY	.0385	-.2006	.5991	-.3147	.1874	1.0000	-.2838
	(186)	(186)	(186)	(186)	(186)	(0)	(186)
	P= .600	P= .006	P= .000	P= .000	P= .010	P= .	P= .000
OWNEROCC	-.3087	.2113	-.4739	.1921	-.3644	-.2838	1.0000
	(186)	(186)	(186)	(186)	(186)	(186)	(0)
	P= .000	P= .004	P= .000	P= .008	P= .000	P= .000	P= .

(Coefficient/(D.F.)/Two-tailed Significance)

"." is printed if a coefficient cannot be computed

Table 6 presents simple correlations among variables, including a dummy variable Type 3 that assigns 1 for consolidated cities and 0 for other types of cities. As in the case of independent cities, overall correlations between consolidated cities and other socioeconomic variables are low and insignificant. Therefore, if the effect of city-county consolidation is controlled, as shown in Table 7, correlation coefficients will remain almost unaffected. However, generally speaking, correlation coefficients between type 3 and other variables are higher than those between type 2 and other variables. Like independent cities, consolidated cities show a weak negative effect on population change (-.1180) and owner occupancy rate (-.1198). As Table 1 demonstrates, consolidated cities show the lowest mean of population change and owner occupancy rate among all types of cities.

The only statistically significant effect of consolidated cities is their impact on owner occupancy rate. Table 8 is the result of a linear regression, using

owner occupancy rate as a dependent variable, and a dummy variable for consolidated cities as an independent variable. It shows that consolidated cities have a negative impact that deducts 4.836% from a base owner occupancy rate level of 53.393%. It makes the mean of the owner occupancy rate of consolidated cities around five percent lower than the average (the mean of the owner occupancy rate of 195 cities is 53.0456%).

Table 8

Model Summary[a,b]

Model	Variables Entered	Variables Removed	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	TYPE3[c,d]	.	.123	.015	.010	10.1567

a. Dependent Variable: OWNEROCC
b. Method: Enter
c. Independent Variables: (Constant), TYPE3
d. All requested variables entered.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	53.393	.755		70.724	.000
	TYPE3	-4.836	2.818	-.123	-1.716	.088

a. Dependent Variable: OWNEROCC

The difference between independent and consolidated cities lies in retail sales change and unemployment rate. While independent cities are positively correlated with retail sales change (.0798) and unemployment (.0109), consolidated cities are negatively correlated with these variables (retail sales change: -.0584; unemployment: -.1048). These differences seem to be reflected in the differences in means shown in Table 1. While independent cities show the highest means for these two variables among the three city categories, consolidated cities show the lowest means.

As mentioned earlier, generally speaking, previous studies have focused on the advantages and disadvantages of city-county consolidation only in terms of the reduction of jurisdictional conflict, the economies of scale, and the broadened revenue base; however, thus far, they have paid little attention

to the socioeconomic impact of consolidation. As an exception, S. J. Makielski suggests that consolidation is likely to attract business and industry owing to the aggressive attitude of the strengthened government.[11] However, as he himself admits, "it is difficult to assess accurately the validity of the claim." The comparison of means and the partial correlation analysis used here show a mixed result for this thesis. The negative effect of consolidated cities on unemployment rates appears to support this claim. However, at the same time, consolidated cities have negative correlations with population change, retail sales change, and owner occupancy rate. Therefore, it appears to be difficult to state that consolidated cities are improving their economic conditions.

On the other hand, compared to consolidated cities, independent cities have weaker correlations with every variable. As in the case of consolidated cities, the results of correlational analyses are mixed in terms of economic development. Independent cities have positive correlations with income change and retail sales change, which are reflected in their higher means for these variables, as compared to dependent cities. However, they have negative correlations with population change and the owner occupancy rate, and positive correlations with the poverty population rate, crime rate, and unemployment rate. Therefore, considering these data, one may state that while independent cities are relatively successful in economic terms, they are not succeeding in improving the socioeconomic status of residents.

CITY GROWTH COMPARED WITH COUNTY GROWTH

In the former sections, the effects of both city-county separation and city-county consolidation were examined based on the city data. What can we say about the differences in population, income, and retail sales growth between cities and their counties, then? In this section, I would like to examine the effect of city-county consolidation and city-county separation on the growth gap between cities and counties. New variables are created by dividing a city growth percentage by its central county growth percentage.[12] The county that has the largest population and is the nearest to the central city is selected. For example, Atlanta is surrounded by a number of counties, but Fulton County has the largest population; therefore, it is selected. In the case of independent cities, the nearest neighboring county is chosen. Isle of Wight County is selected as a central county for Chesapeake, Norfolk, Portsmouth, and Virginia Beach. As for Washington, D.C., Fairfax County, which has the largest population, is selected.

Table 9 displays the mean differences of the city/county ratios of each variable among the different types of cities. As for the city/county median income change ratio (INCRATIO), while most of the cities indicate that counties grow faster than cities, there appears to be little gap between cities and counties, in the case of independent (TYPE 2.00) and consolidated cities (TYPE 1.00). With regard to the city/county population ratio (POPRATIO), there appear to be significant differences depending on the types of cities. In the case of usual, dependent cities, the increase in population is greater in cities than in their neighboring counties (city/county ratio = 1.5514). However, in consolidated cities, the increase in population is slightly slower than it is in their counties. In the case of independent cities, as indicated by the negative ratio, the increase in population is higher in the counties than in the cities. This is consistent with the previous arguments in this article. As for the city/county poverty population rate ratio (POVRATIO), the poverty rates of independent cities are more than twice that of their neighboring counties (2.5771), while the poverty rates of other types of cities are only one and a half times as high as that of their counties. A higher poverty rate compared to that of counties appears to be one of the characteristics of independent cities. For example, in 1990, the poverty rate of Charlottesville (10.0%) was more than double that of Albemarle County (4.8%), exactly as indicated by the means in this table.[13] Finally, with regard to the city/county retail sales change ratio (SALRATIO), the difference among the three types of cities appears to be negligible. All three types of cities display slightly slower growth than the counties.

Table 9

Descriptives

			N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
							Lower Bound	Upper Bound		
INCRATIO	TYPE	.00	169	.9509	.1283	9.9E-03	.9314	.9704	.29	1.26
		1.00	14	1.0030	2.67E-02	7.1E-03	.9876	1.0185	.94	1.07
		2.00	10	1.0145	.1480	4.7E-02	.9086	1.1204	.77	1.23
		Total	193	.9580	.1259	9.1E-03	.9401	.9759	.29	1.26
POPRATIO	TYPE	.00	171	1.5514	8.3679	.6399	.2882	2.8146	-32.67	83.00
		1.00	14	.9667	.3993	.1067	.7362	1.1973	.13	1.89
		2.00	10	-.1044	2.2666	.7168	-1.7259	1.5170	-5.67	2.80
		Total	195	1.4245	7.8586	.5628	.3146	2.5345	-32.67	83.00
POVRATIO	TYPE	.00	171	1.3531	.7026	5.4E-02	1.2470	1.4591	.10	6.05
		1.00	14	1.2118	.6556	.1752	.8333	1.5904	1.00	3.47
		2.00	10	2.5771	1.6909	.5347	1.3675	3.7868	.43	5.15
		Total	195	1.4057	.8185	5.9E-02	1.2901	1.5213	.10	6.05
SALRATIO	TYPE	.00	165	.9042	.4960	3.9E-02	.8279	.9804	-2.00	2.58
		1.00	14	.9986	6.28E-02	1.7E-02	.9624	1.0349	.80	1.06
		2.00	10	.9465	.4240	.1341	.6432	1.2498	.34	1.67
		Total	189	.9134	.4734	3.4E-02	.8455	.9813	-2.00	2.58

Table 10
ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
INCRATIO	Between Groups	6.9E-02	2	3.4E-02	2.199	.114
	Within Groups	2.973	190	1.6E-02		
	Total	3.041	192			
POPRATIO	Between Groups	29.065	2	14.532	.233	.792
	Within Groups	11952.0	192	62.250		
	Total	11981.0	194			
POVRATIO	Between Groups	14.722	2	7.361	12.265	.000
	Within Groups	115.233	192	.600		
	Total	129.955	194			
SALRATIO	Between Groups	.127	2	6.3E-02	.280	.756
	Within Groups	42.010	186	.226		
	Total	42.137	188			

In order to examine whether the three population means are significantly different statistically, an analysis of variance technique (ANOVA) is used. In the ANOVA, the observed significance level is obtained by comparing the calculated F value to the F distribution. As Table 10 shows, the two-tailed significance levels of the population change ratio and retail sales change ratio are not low enough to reject the null hypothesis that all groups have the same mean in the population. As explained above, although the mean differences of the population change ratio appears to be plausible, they are not statistically significant enough. From Table 10, we can see that the mean differences of the income change ratio and poverty rate ratio are statistically significant.

To examine the relationships between the types of cities and these city/county ratio variables, I would again like to use a partial correlation technique, holding constant the effects of city-county separation and city-county consolidation.

Table 11

Zero Order Partials

	INCRATIO	POPRATIO	POVRATIO	SALRATIO	TYPE2	TYPE3
INCRATIO	1.0000	-.0474	-.1380	.2813	.1039	.0986
	(0)	(187)	(187)	(187)	(187)	(187)
	P= .	P= .517	P= .058	P= .000	P= .155	P= .177
POPRATIO	-.0474	1.0000	-.0094	.0059	-.0474	-.0186
	(187)	(0)	(187)	(187)	(187)	(187)
	P= .517	P= .	P= .897	P= .936	P= .518	P= .800
POVRATIO	-.1380	-.0094	1.0000	-.3038	.3358	-.0695
	(187)	(187)	(0)	(187)	(187)	(187)
	P= .058	P= .897	P= .	P= .000	P= .000	P= .342
SALRATIO	.2813	.0059	-.3038	1.0000	.0166	.0510
	(187)	(187)	(187)	(0)	(187)	(187)
	P= .000	P= .936	P= .000	P= .	P= .821	P= .485
TYPE2	.1039	-.0474	.3358	.0166	1.0000	-.0669
	(187)	(187)	(187)	(187)	(0)	(187)
	P= .155	P= .518	P= .000	P= .821	P= .	P= .361
TYPE3	.0986	-.0186	-.0695	.0510	-.0669	1.0000
	(187)	(187)	(187)	(187)	(187)	(0)
	P= .177	P= .800	P= .342	P= .485	P= .361	P= .

(Coefficient/(D.F.)/Two-tailed Significance)

"." is printed if a coefficient cannot be computed

Table 12

Controlling for.. TYPE2 TYPE3

	INCRATIO	POPRATIO	POVRATIO	SALRATIO
INCRATIO	1.0000	-.0407	-.1805	.2776
	(0)	(185)	(185)	(185)
	P= .	P= .580	P= .013	P= .000
POPRATIO	-.0407	1.0000	.0058	.0078
	(185)	(0)	(185)	(185)
	P= .580	P= .	P= .937	P= .915
POVRATIO	-.1805	.0058	1.0000	-.3267
	(185)	(185)	(0)	(185)
	P= .013	P= .937	P= .	P= .000
SALRATIO	.2776	.0078	-.3267	1.0000
	(185)	(185)	(185)	(0)
	P= .000	P= .915	P= .000	P= .

(Coefficient/(D.F.)/Two-tailed Significance)

"." is printed if a coefficient cannot be computed

Table 11 represents the correlations among the ratio variables and dummy variables for independent cities (TYPE2) and consolidated cities. Once again, the correlation coefficients among these variables and the city type variables are generally low. Hence, the difference between Table 12, which controls the effect of independent and consolidated cities, and Table 11 appears to be negligible. The strongest correlation between these variables and TYPE 2 is the poverty rate ratio, at .3358. As we have seen above, this positive correlation between independent cities and the higher city/county poverty rate ratio appears to be reflected in the mean difference of this variable. Both TYPE 2 and TYPE 3 have weak positive correlations with the income change ratio. The means of the income change ratio of both types of cities are around one, which implies that there is no difference in the degree of income change between cities and counties. On the other hand, the mean for the other types of cities is .9509, which shows that the income change rate in cities is slightly slower than that in counties. We might be able to state that city-county separation and consolidation slightly improves the speed of the income change of cities as compared to that of counties.

Table 13

Model Summary[a,b]

Model	Variables Entered	Variables Removed	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	TYPE2[c,d]	.	.334	.111	.107	.7736

a. Dependent Variable: POVRATIO
b. Method: Enter
c. Independent Variables: (Constant), TYPE2
d. All requested variables entered.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.342	057		23.603	.000
	TYPE2	1.235	.251	.334	4.916	.000

a. Dependent Variable: POVRATIO

Table 13 presents a regression using the city/county poverty rate ratio as its dependent variable and the dummy for TYPE 2 (independent cities) as an independent variable. This shows that independent cities have a positive effect on the city/county poverty rate ratio. It indicates that independent cities have a positive impact that adds 1.235% to the base city/county poverty rate ratio level of 1.342%. As a result, the city/county poverty rate ratio of independent cities is almost double that of the average cities, as discussed before.

In this section, we examined the effect of city-county separation, using city/county ratio data. However, except for the poverty rate, the difference among the three types of cities appears to be negligible. With regard to the clearly higher percentage of the poverty population of independent cities as compared to their neighboring counties, this finding appears to again lead to our observation that independent cities are not succeeding in improving the socioeconomic status of residents.

CONCLUSION

In drawing conclusions from these statistical analyses, we can observe that there is no evidence strong enough to support the hypothesis that city-county consolidation has a positive effect on economic development. At the same time, there is little proof that the practice of city-county separation has a negative effect on the economic performances of cities. The types of cities appear to be weak indicators of socioeconomic variables. However, the socioeconomic characteristics of the residents of independent cities described above may lead to fiscal problems in the following manner. Due to the higher percentages of poverty populations and unemployment rates, cities have to collect more taxes per capita than counties, in order to support their financial burden. However, they receive less overall state aid per capita than counties, mainly because, unlike the counties whose roads are constructed and maintained by the state, they have to construct and maintain their own roads.[14] Therefore, as compared to counties, cities are more likely to experience higher levels of fiscal stress relative to counties.[15] They cannot utilize the resources of their neighboring counties, which generally have a smaller dependent population. Further, independent cities find it difficult to grow territorially because any annexation attempts by cities could be opposed by their neighboring counties for the reasons mentioned above.[16] The lower population growth of independent cities in relation to that of dependent cities, which was identified in this research, appears to support this hypothesis.

On the other hand, city-county consolidation does not guarantee that the economic situations of consolidated cities will improve. While consolidated cities show the highest mean of income change and the lowest mean of unemployment rate, they represent the highest mean of poverty population and the lowest mean of retail sales change and owner occupancy rate. In this way, consolidations seem to have produced mixed results in terms of economic impact. According to the case study of Athens-Clarke County, Georgia, even the organizational and personnel efficiencies that are often claimed as advantages of a consolidated government appear to be derived from a political climate favoring spending cuts rather than from efficiencies achieved by merging the two governments.[17]

This research was intended as an investigation of the impact of the practice of city-county separation on urban policy outputs. In order to explore this subject further, we must pay attention to the differences between central cities and suburbs for the variables used in this research[18]. As shown in this paper, the types of cities by themselves do not satisfactorily explain the variances of socioeconomic indexes among cities. Policies are not formulated as a result of city-county separation but by city governments. Therefore, future research should explore how to integrate the types of cities as an intervening variable into a series of analytical models. This article can serve as the necessary first step toward building a framework to assess the impact of institutional differences (city-county separation/consolidation) on urban policy outputs.

NOTES

[1] U.S. Census Bureau, *2002 Census of Governments*, 6.

[2] Ann O'M Bowman and Richard C. Kearney, *State and Local Government*, 5th ed. (Boston: Houghton Mifflin, 2004), 343.

[3] National League of Cities, "About Cities: City-County Consolidations," National League of Cities website. http://www.nlc.org/about_cities/cities_101/166.aspx (accessed on September 1, 2007).

[4] Kee Ok Park, "State-Local Relations in Virginia: Is It Time for a Change?"(91st annual meeting of the American Political Science Association, Chicago, September 1995), 1.

[5] Jack D. Edwards, *Neighbors and Sometimes Friends: Municipal Annexation in Modern Virginia* (Charlottesville, Va: Center for Public Service, University of Virginia, 1992), 29–31.

[6] Park, "State-Local Relations," 5.

[7] Stanislaw J. Makielski, *City-County Consolidation: A Guide for Virginians* (Charlottesville, Va: Urban Research Division, Institute of Government, University of Virginia, 1971), 22–29.

[8] Population net change (percent) 1980–1992; median household income change (percent) 1979–1989; percentage of families whose income is below the poverty level (1989); retail trade sales change (percent) 1982–1987; crime rate per 100,000 resident population estimated

for 1991 by the Federal Bureau of Investigation; civilian unemployed as a percentages of the total civilian labor force (1991); percentage of owner occupied in total occupied housing units (1990).

[9] The eight cities in Virginia are Alexandria, Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Richmond, and Virginia Beach. The fourteen cities that have consolidated city-county governments are San Francisco, Calif., Denver, Colo., Honolulu, Hawaii, Nashville, Tenn., Jacksonville, Fla., Columbus, Ga., Indianapolis, Ind., Lexington-Fayette, Ky., Baton Rouge, La., New Orleans, La., Boston, Mass., New York, N.Y., Philadelphia, Pa. Six cities which have no county government are Bridgeport, Hartford, New Haven, Stamford, Waterbury in Connecticut and Providence in Rhode Island.

[10] See David Rusk, *Cities without Suburbs* (Washington, D.C.: Woodrow Wilson Center Press, 1993) and Edwards, *Neighbors and Sometimes Friends.*

[11] Makielski, *City-County Consolidation*, 29.

[12] County population net change (percent) 1980–1992; median household income change (percent) 1979–1989; percentages of families whose income is below the poverty level (1989); retail trade sales change 1982–1987.

[13] See William H. Lucy, *Planning Strategically as If People Matter: A Plan for Charlottesville* (Charlottesville, Va: University of Virginia, 1996), Unpublished, Chapter IV.

[14] Park, "State-Local Relations"11; Joint Legislative Audit and Review Commission, Virginia General Assembly, *Intergovernmental Mandates and Financial Aid to Local Governments* (Richmond, VA: Commonwealth of Virginia, 1992), 69–104.

[15] ibid., 30.

[16] Park, "State-Local Relations,"11.

[17] Stephen E. Condrey, "Organizational and Personnel Impacts on Local Government Consolidation: Athens-Clarke County, Georgia," *Journal of Urban Affairs*, Vol.16 (1994): 371–83.

[18] See William H. Lucy and David L. Phillips, *The Post-Suburban Era: Cities, Suburbs, and Exurbs 1960 to 1990 and Beyond* (Charlottesville, Va: University of Virginia, 1996), Unpublished; William H. Lucy, *Confronting Suburban Decline: Strategic Planning for Metropolitan Renewal* (Washington, D.C.: Island Press, 2000); William H. Lucy and David L. Phillips, *Tomorrow's Cities, Tomorrow's Suburbs* (Chicago: Planners Press, American Planning Association, 2006).