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Infant Mortality: Cross Section study of the United State, with Emphasis on Education

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^The correlation ran is in Appendix A.
^^Appendix B contains the random effect Hausman test from the closest fit model
^^^ Appendix C contains the data

Introduction

On the surface infant mortality is usually thought of as just a unfortunate part of life in what can happen to an individual family, but infant mortality is part of the factors that affect social capital, which can lead back to overall trust in a community. When that trust starts to wither within a community, economic activity will be affected as community members will not behave as they usually do within their given economic boundaries. While social capital is not solely affected by infant mortality, it does show what type of health status an area has. As a community, state, or country becomes "healthier" we usually will see a high quality of life in terms of being able to afford a better lifestyle of all people affected not just a few individuals. "Health is telling us a story about the major influences on the quality of life in modern societies and it is a story which we cannot afford to ignore". (Wilkinson 1996) How we tie in that health to economic growth is through social capital**.** Social capital (generalized trust) is positively correlated with GDP growth and is one of many factors in sustaining that growth. (Putnam 1993) A major contribution to that increase in social capital is having a healthy community. Infant mortality has a part of the health component and has a negative correlated effect on GDP growth. Education levels are important factors in reducing infant mortality. Previous authors explored what causes infant mortality to be higher in different regions (i.e. Martinez et al., Song et al. Gisselmann 2005). These authors looked at China, Uruguay, Sweden, and other regions. These authors concluded that education is a main factor, in reducing infant mortality. Gisselmann argues that more years of education is more beneficial for infant mortality rates than higher income levels. This study will look particularly into the United States as a whole, and break down states as individual cross sections. Once it is reestablished with previous literature that

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infant mortality being reduced is beneficial for the economy, the data itself will look at what reduces infant mortality rates. Each state is thought to have individual characteristics in cultural, religious, social, and other aspects. The study will look into variations of educational attainment levels and income levels. The data will further see within a country whether there is a educational and infant mortality paradox, as well as how much an individual state influences its own infant mortality rate.

Literature Review

Growth in GDP is affected by social capital. There is a positive correlation between GDP and social capital, but social capital is accessed by different factors. Social capital (which can be categorized as trust as well) leads to the sought after economic growth of a community. Some of the connections made that have been referenced are: how government functions, voluntary cooperation, generalized reciprocity. (Putnam 1993) Mellor et al. describes how that same social capital is connected to public health. "Because social capital is typically described as an attribute of organizations or communities that facilitates mutual cooperation, several studies measure social capital in a particular place by the average level of civic participation or average measure of trust in others. Such measures have been shown to be associated with many different indicators of well-being including various measure of individual and population health." (Mellor et al. 2005) Julio Frenk even goes further into arguing that health is usually just a bystander of good economic growth, but in fact that health in general is essential for improving economic conditions. "For decades, the connection between health and economic growth was viewed as a

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simple, unidirectional relationship: economic growth promotes health through better living conditions, including investments in sanitary infrastructure and housing, improved nutrition, and increased access to education and health services. However, we now know that good health is not only a consequence, but also a condition for sustained and sustainable economic development". (Frenk 2014) As a communities day-to-day activity is happening, there is a need for people to be healthy, as well as their children and elderly. Strong health will allow for a region to focus on other aspects of functioning as a community. In this case if infant mortality begins to rise then members of a community begin to focus less on operating a government, or supporting local business, and more on keeping their children alive. There is less disposable income being used within other stores, or restaurants, etc. Social cohesion (Kennedy et al. 1998, Kennely et al. 2003, Mellor et al.2005) plays a large role in this concept of needing health to be trustworthy of others. Kennedy says that the regional characteristics are correlated with social capital. "Citizens living in regions characterized by high levels of social capital were more likely to trust their fellow citizens and to value solidarity, equality, and mutual tolerance. They were also blessed with high-functioning local governments." (Kennedy et al. 1998) The articulation by this article about "high function local governments, is especially a strong point made, as economic activity in a local area goes through its local government. Keeping a healthy community is part of keeping a high functioning government, which is active in the processes that are going on in a given region.

Income inequality is considered another major factor for individual health status, and the health status of populations. "The quality of the psychosocial environment is the main explanatory mechanism for the association between income inequality and cross-country

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differences in population health. Increased income inequality reduces social cohesion, which in turn negatively impacts on health. As the distance between the rich and the poor widens, social cohesion begins to break down. Social cohesion or social capital has been defined as those features of social organization—such as the extent of interpersonal trust between citizens, norms of reciprocity and voluntary group membership—that facilitate co-operation for mutual benefit. Inequality is a barrier to the development of health-inducing social relations and for that reason investment in appropriate social capital is a key strategy for public health" (Kennelly et al.). Income inequality is an important factor for controlling the health status of a population, but educational attainment can reduce this factor and arguably help control health status as well. Education can be a controllable factor where increasing the educational attainment requirements in a region will help to improve health status of a population. Educational attainment would reduce income inequality and health care (if needed) itself more affordable for a population and lead back into stronger social capital.

Infant mortality doesn't stop social capital right away unless there is a generally sharp increase in deaths. But a continuous trend of higher infant mortality is a telling story of the health status in a given region. Infant mortality leading back to social capital is a necessary engine of growth. "Infant mortality and health in general directly influence the level of human capital, human capital investments, and labor market outcomes" (Martinez et al. 2014). Martinez et al. perspective on infant mortality is from a distinctly economic point of view. Infant mortality does have a effect on the economy and needs to be reduced in order to keep a community functioning. A lower infant mortality rate will have a positive effect on GDP growth for a given region.

Song et al. describes how in China mistaking focus solely on economic development. But they did not focus on the health of infants, especially on educating mothers so they could be

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better equipped to help nurture their infants. Starting from this study and others (Martinez et al. 2014, Song et al. 2011, Gisselmann 2005), the articles started to look at education as a determinant that could be controlled and highly significant in increasing or decreasing infant mortality. Education has been looked at from years of schooling, different attainment levels, as well as general education attainment at one level. Poverty, income, income inequality, have also been heavily looked at as potential explanatory variables towards infant mortality as well. But for this study education will be the main focus as we can see what (and if any) effect the different educational attainment levels will do to affect infant mortality.

Methodology

The paper is going to explore three main variables: educational attainment at the high school and bachelor degree levels, median income, and infant mortality death rate per 1,000 births. The infant mortality rates come from U.S. vital statistics all from the CDC. All of the states have the standardized infant mortality death of x amount of deaths per 1,000 births. The educational attainment data comes from the U.S. Census. The census uses an American Current Population Survey that is given every year. For each of the high school degree and bachelor degree thresholds, it is the percentage of people who have that certain degree and are at least 25 years of age. The median income data comes from the census as well. The states and years are given variables. Median income will be logged as well to standardize the results.

A main contribution of this paper is that, there is currently no cross sectional analysis of infant mortality across the states in America. The data will be looked at from 2000-2010 and for all 50 states. With this data a total of 550 observations are shown. The initial equation will put

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infant mortality as the dependent variable and will have the intercept, median income, high school and bachelor degree attainment percentages as the independent variables.

$$\mathbf{INFDR_{it} = \beta_{0it} + \beta_1 MEDINC_{it} + \beta_2 BA_{it} + \beta_3 HS_{it} + \varepsilon_{it} \quad (1)}$$

INFDR will be used as the infant death rate per 1,000 births in a given state. MEDINC is the median income, BA is the % of people who have a bachelor's degree or greater, and HS is the % of people who have a high school degree or greater. The characteristic 'i' is for a state and 't' represents a given year. In order for the variables to have a standardized read out, the variable MEDINC is logged to create percentages so that all of the variables have results in percentages that relate to a percentage change compared to the amount of deaths per 1,000 births. In order to address the time series nature of the dataset as well as the regional characteristics a panel technique will be used. All of results used will have panel estimates, but will change with different sections and variables used in order to look and see how the various levels of educational attainment interact with the infant mortality rate. Taking the equation from (1) after logging MEDINC, MEDINCL is created:

$$\mathbf{INFDR_{it} = \beta_{0it} + \beta_1 MEDINCL_{it} + \beta_2 BA_{it} + \beta_3 HS_{it} + \varepsilon_{it} \quad (2)}$$

To look at each of the variables and compare them, equations (3)-(6) are created in order to have different variations of the panel data to be observed.

$$\mathbf{INFDR_{it} = \beta_{0it} + \beta_1 MEDINCL_{it} + \varepsilon_{it}\ (3)}$$

$$\mathbf{INFDR_{it} = \beta_{0it} + \beta_1 HS_{it} + \varepsilon_{it}\ (4)}$$

$$\mathbf{INFDR_{it} = \beta_{0it} + \beta_1 BA_{it} + \varepsilon_{it}\ (5)}$$

$$\mathbf{INFDR_{it} = \beta_{0it} + \beta_1 BA_{it} + \beta_1 HS_{it} + \varepsilon_{it}\ (6)}$$

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A fixed effect is the main technique being used in order to look at the regional differences. There are also results for a random effect model. Between the F test for the fixed effect and the Hauseman test for the random model, the F test is shows to be more significant, as well fixed effect models are better for large datasets such as individual states in a country. In order to make sure that high correlations amongst the variables were limited are results for a Pearson correlation^. As expected income and education will have some correlation, especially with more bachelor degrees. A panel technique is better for this data set so that the cross sectional data can be looked at individually. The panel data will help capture the individual characteristics of the states and years. Since multi co-linearity can often be a problem with just a simple OLS, the panel technique will eliminate this problem. The individual characteristics of a given state can vary widely, including: cultural, environmental, customs, laws, and regulations. The panel technique helps to capture these unobservable characteristics within the various cross sections. While running the different models the F test for the fixed effect and the Hausman test for the random effect models are monitored to check for significance. The main objectives with these equations are to see how the educational levels are related to infant mortality rates.

Results

For the cross sections, Alabama will be the base state. All of the tables show an interesting relationship with the test for the fixed effects.^^^ Since the F test has a high value then we can reject the null hypothesis, meaning there is a fixed effect for the state level characteristics. Equation (3) in TABLE 1 is a good fit with 78% of the variance explained. As median income increases by 1% we see that per 1000 births, there are 2.5 more deaths. This is generally not accepted as what would happen with an increase in median income. Even amongst the Pearson Correlation^ there is a negative relationship between income and infant mortality.

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For (3) we see the states of Alaska, California, Florida, Hawaii, Iowa, Maine, Minnesota, Missouri, Montana, North Dakota, Oklahoma, Oregon, South Dakota, and Texas have a increase in infant mortality at 5% significance. The states of Colorado, Connecticut, Delaware, Kansas, Maryland, Michigan, Mississippi, New Jersey, New Mexico, Pennsylvania, Vermont, Virginia, West Virginia have a decrease in infant mortality with each state. While some of the states might seem to be out of place from what they would typically be thought of as a relation to infant mortality, death rates and income come from the state as a whole, and a bottom or top population can drive results one way or the other.

TABLE 1

Fit Statistics			
SSE	241.4928	**DFE**	499
MSE	0.4840	**Root MSE**	0.6957
R-Square	0.7796		

Parameter Estimates- infdr					
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	-20.01	7.4432	-2.69	0.0074
medincl	1	2.461086	0.6831	3.60**	0.0003

F Test for No Fixed Effects			
Num DF	**Den DF**	**F Value**	**Pr > F**
49	499	26.57	<.0001

***Significant at the 5% level- P< 0.05**

****Significant at the 1% level – P<0.01**

Equation (4) in TABLE 2 as expected with an increase in high school degree percentage there is a drop in infant mortality. The fit is roughly the same as the first equation with 78% variance explained. As there is a 1% increase in high school degrees there are .1 less deaths per

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1,000 births. There are a less amount of significant states with regional differences. Only Maine, Florida, and Missouri show to increase infant mortality, while Colorado, Delaware, Kansas, Maryland, Michigan, Mississippi, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Pennsylvania, Utah, Vermont, Virginia, and West Virginia, lower infant mortality rates. These results are more in line with what would be expected.

Fit Statistics			
SSE	241.3506	**DFE**	499
MSE	0.4837	**Root MSE**	0.6955
R-Square	0.7797		

F Test for No Fixed Effects			
Num DF	**Den DF**	**F Value**	**Pr > F**
49	499	26.03	<.0001

Parameter Estimates					
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	15.84755	2.4923	6.36**	<.0001
hs	1	-0.09921	0.0272	-3.64**	0.0003

***Significant at the 5% level- P< 0.05**

****Significant at the 1% level – P<0.01**

Equation (5) once again is a strong fit at 78%. The bachelor degree level has slightly less impact than a high school degree did. Between equation (4) and (5), in reducing infant mortality it is more important to get through the initial high school threshold than getting a bachelor's

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degree. The states of Alaska, Florida, Hawaii, Indiana, Maine, Massachusetts, Minnesota, Missouri, Montana, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota, Texas, and Washington showed increases in mortality rates. Only the states Kansas, Maryland, and Vermont show a decrease in infant mortality rates.

Fit Statistics			
SSE	242.8784	**DFE**	499
MSE	0.4867	**Root MSE**	0.6977
R-Square	0.7783		

F Test for No Fixed Effects			
Num DF	**Den DF**	**F Value**	**Pr > F**
49	499	25.48	<.0001

Parameter Estimates					
Intercept	1	8.342685	0.5310	15.71	<.0001
ba	1	-0.07081	0.0223	-3.17**	0.0016

***Significant at the 5% level- P< 0.05**

****Significant at the 1% level – P<0.01**

Equation (6) allows for the comparison between high school and bachelor level attainment in education levels. The variance explained only goes up just above 78%. In this instance only high school degrees are more significant when compared to bachelor degrees. But both variables still show a decrease in infant mortality rates when either one goes up by 1%. Colorado, Kansas, Maryland, Mississippi, New Jersey, Pennsylvania, Vermont, and West

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Virginia, all show a decrease in Infant mortality rates. While Alaska, Florida, Maine, Missouri, and Texas have an increase in mortality rates.

Parameter Estimates- infdr					
Intercept	1	14.50231	2.6265	5.52	<.0001
ba	1	-0.04084	0.0255	-1.60	0.1100
hs	1	-0.07469	0.0312	-2.39*	0.0170

***Significant at the 5% level- P< 0.05**

****Significant at the 1% level – P<0.01**

F Test for No Fixed Effects			
Num DF	**Den DF**	**F Value**	**Pr > F**
49	498	22.37	<.0001

The final equation (2) only raises the variance explained to 79%. With all three of the main variables interaction, we see bachelor and high school educational attainment levels still have a negative effect on infant mortality rates, but once again only high school educational attainment is highly significant. Median income is still positively associated with the death rate, but at a lower magnitude than before.

F Test for No Fixed Effects			
Num DF	**Den DF**	**F Value**	**Pr > F**
49	498	22.37	<.0001

Parameter Estimates- infdr

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medincl	1	2.321597	0.6792	3.42**	0.0007
ba	1	-0.0464	0.0253	-1.83	0.0671
hs	1	-0.0624	0.0311	-2.01*	0.0452

***Significant at the 5% level- P< 0.05**

****Significant at the 1% level – P<0.01**

Conclusion

Education in the final equation does show significance, but only in the high school level of attainment, and in either case it doesn't seem to have a large effect on the infant mortality rate. Median income seems to have a bigger effect than would be expected, but more interestingly it does not help infant mortality rates decrease. This could be, because of the base state being Alabama where the rates are usually higher than in other states.

There are many other variables that could capture other characteristics, such as different levels of education, an income inequality measure, a look at sets of hospital regulations relating to infants, etc. Within education, it could be looked at as a continuous variable for years of schooling as well. This study needs to have more time and different educational instruments to see the true effect of education at different levels within a given region.

Further studies would look into individual years of education, which would make the cross section of individual state characteristics less favorable, as an individual year averages and attainment levels could be measured against each other thoroughly. Other techniques could use just observations in logit models, or OLS. A panel technique could be used again with different states as a base, and time as the cross sections.

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Appendix A

Pearson Correlation Coefficients, N = 550 Prob > |r| under H0: Rho=0				
	infdr	**medinc**	**ba**	**hs**
infdr	1.00000	-0.43716	-0.47300	-0.46556
		<.0001	<.0001	<.0001

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Pearson Correlation Coefficients, N = 550
Prob > |r| under H0: Rho=0

	infdr	medinc	ba	hs
medinc	-0.43716	1.00000	0.76142	0.50464
	<.0001		<.0001	<.0001
ba	-0.47300	0.76142	1.00000	0.47585
	<.0001	<.0001		<.0001
hs	-0.46556	0.50464	0.47585	1.00000
	<.0001	<.0001	<.0001	

Appendix B

^^The m value is high so we fail to reject the null hypothesis

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Hausman Test for Random Effects		
DF	**m Value**	**Pr > m**
3	13.31	0.0040

Parameter Estimates					
Variable	**DF**	**Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	1.456186	0.9753	1.49	0.1360
medincl	1	0.15751	0.0864	1.82	0.0689
ba	1	-0.01152	0.00318	-3.63	0.0003
hs	1	-0.01103	0.00382	-2.89	0.0041

Appendix C

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Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
1	'Alabama	2000	9.51	20.4	77.5	47232	1	0	0	0	10.7628	2.25234
2	Alabama	2001	9.33	20.2	80.2	45600	1	0	0	0	10.7277	2.23324
3	Alabama	2002	9.12	22.7	78.9	47993	1	0	0	0	10.7788	2.21047
4	Alabama	2003	6.84	22.7	79.9	46510	1	0	0	0	10.7474	1.92279
5	Alabama	2004	8.80	22.3	82.4	44525	1	0	0	0	10.7038	2.17475
6	Alabama	2005	9.60	19.8	80.9	43694	1	0	0	0	10.6850	2.26176
7	Alabama	2006	9.40	20.8	82.1	43220	1	0	0	0	10.6741	2.24071
8	Alabama	2007	10.00	21.4	80.4	46745	1	0	0	0	10.7525	2.30259
9	Alabama	2008	9.60	22.0	81.9	47430	1	0	0	0	10.7670	2.26176
10	Alabama	2009	8.40	22.0	82.1	42798	1	0	0	0	10.6642	2.12823
11	Alabama	2010	8.70	21.9	82.1	43106	1	0	0	0	10.6714	2.16332
12	Alaska	2000	6.92	28.1	90.4	70463	0	0	0	0	11.1628	1.93442
13	Alaska	2001	7.90	25.7	91.1	74395	0	0	0	0	11.2171	2.06686
14	Alaska	2002	5.63	25.6	92.2	67356	0	0	0	0	11.1177	1.72811
15	Alaska	2003	8.65	24.0	90.6	64715	0	0	0	0	11.0777	2.15756
16	Alaska	2004	6.90	25.5	90.2	66933	0	0	0	0	11.1114	1.93152
17	Alaska	2005	6.10	28.6	91.7	65736	0	0	0	0	11.0934	1.80829
18	Alaska	2006	7.40	27.7	92.0	64249	0	0	0	0	11.0705	2.00148
19	Alaska	2007	6.80	26.0	90.5	69758	0	0	0	0	11.1528	1.91692
20	Alaska	2008	6.20	27.3	91.6	68239	0	0	0	0	11.1308	1.82455
21	Alaska	2009	7.00	26.6	91.4	65946	0	0	0	0	11.0966	1.94591
22	Alaska	2010	4.00	27.9	91.0	60919	0	0	0	0	11.0173	1.38629
23	Arizona	2000	6.75	24.6	85.1	53044	0	0	1	0	10.8789	1.90954
24	Arizona	2001	6.95	24.4	83.8	55384	0	0	1	0	10.9220	1.93874
25	Arizona	2002	6.42	26.3	84.6	50713	0	0	1	0	10.8339	1.85942
26	Arizona	2003	8.65	26.0	83.8	51393	0	0	1	0	10.8473	2.15756
27	Arizona	2004	7.10	28.0	84.4	53298	0	0	1	0	10.8837	1.96009
28	Arizona	2005	7.20	28.0	85.8	53215	0	0	1	0	10.8821	1.97408
29	Arizona	2006	6.90	24.5	83.1	53133	0	0	1	0	10.8806	1.93152
30	Arizona	2007	7.40	25.3	83.5	52285	0	0	1	0	10.8645	2.00148
31	Arizona	2008	6.60	25.1	83.8	50030	0	0	1	0	10.8204	1.88707
32	Arizona	2009	6.40	25.6	84.2	48963	0	0	1	0	10.7988	1.85630
33	Arizona	2010	6.00	25.9	85.6	49385	0	0	1	0	10.8074	1.79176
34	Arkansas	2000	8.23	18.4	81.7	39596	1	0	0	0	10.5865	2.10779

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Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
35	Arkansas	2001	8.35	18.6	80.5	43238	1	0	0	0	10.6745	2.12226
36	Arkansas	2002	8.36	18.3	81.0	41336	1	0	0	0	10.6295	2.12346
37	Arkansas	2003	6.50	17.4	80.9	39952	1	0	0	0	10.5954	1.87180
38	Arkansas	2004	8.40	18.8	79.2	42526	1	0	0	0	10.6579	2.12823
39	Arkansas	2005	8.00	17.5	81.4	43115	1	0	0	0	10.6716	2.07944
40	Arkansas	2006	8.90	19.0	82.5	42201	1	0	0	0	10.6502	2.18605
41	Arkansas	2007	7.80	19.3	81.1	45176	1	0	0	0	10.7183	2.05412
42	Arkansas	2008	7.40	18.8	82.0	42215	1	0	0	0	10.6505	2.00148
43	Arkansas	2009	7.90	18.9	82.4	39113	1	0	0	0	10.5742	2.06686
44	Arkansas	2010	7.30	19.5	82.9	40635	1	0	0	0	10.6124	1.98787
45	Californ	2000	5.42	27.5	81.2	62421	0	0	1	0	11.0417	1.69010
46	Californ	2001	5.35	29.1	81.0	61295	0	0	1	0	11.0235	1.67710
47	Californ	2002	5.43	27.9	80.2	60544	0	0	1	0	11.0111	1.69194
48	Californ	2003	5.18	29.8	81.1	61547	0	0	1	0	11.0276	1.64481
49	Californ	2004	5.40	31.7	81.3	59833	0	0	1	0	10.9993	1.68640
50	Californ	2005	5.60	30.6	80.4	60871	0	0	1	0	11.0165	1.72277
51	Californ	2006	5.40	29.8	80.8	62998	0	0	1	0	11.0509	1.68640
52	Californ	2007	5.60	29.5	80.2	61719	0	0	1	0	11.0303	1.72277
53	Californ	2008	5.30	29.6	80.2	60801	0	0	1	0	11.0154	1.66771
54	Californ	2009	5.20	29.9	80.6	60090	0	0	1	0	11.0036	1.64866
55	Californ	2010	4.90	30.1	80.7	57164	0	0	1	0	10.9537	1.58924
56	Colorado	2000	6.14	34.6	89.7	64320	0	0	1	0	11.0716	1.81482
57	Colorado	2001	5.82	35.2	88.6	64064	0	0	1	0	11.0676	1.76130
58	Colorado	2002	5.98	35.7	87.6	61638	0	0	1	0	11.0290	1.78842
59	Colorado	2003	6.13	36.0	88.7	62346	0	0	1	0	11.0405	1.81319
60	Colorado	2004	6.60	35.5	88.3	61856	0	0	1	0	11.0326	1.88707
61	Colorado	2005	6.70	35.5	89.3	59335	0	0	1	0	10.9910	1.90211
62	Colorado	2006	6.00	36.4	90.0	63428	0	0	1	0	11.0577	1.79176
63	Colorado	2007	6.30	35.0	88.9	67707	0	0	1	0	11.1229	1.84055
64	Colorado	2008	6.50	35.6	88.9	64990	0	0	1	0	11.0820	1.87180
65	Colorado	2009	6.50	35.9	89.3	59872	0	0	1	0	11.0000	1.87180
66	Colorado	2010	5.90	36.4	89.7	63431	0	0	1	0	11.0577	1.77495
67	Connecti	2000	6.51	31.6	88.2	66896	0	1	0	0	11.1109	1.87334
68	Connecti	2001	6.05	32.4	87.5	69187	0	1	0	0	11.1446	1.80006

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
69	Connecti	2002	6.50	32.6	88.0	68138	0	1	0	0	11.1293	1.87180
70	Connecti	2003	5.32	33.5	87.5	68620	0	1	0	0	11.1363	1.67147
71	Connecti	2004	5.60	34.5	88.8	66978	0	1	0	0	11.1121	1.72277
72	Connecti	2005	6.00	36.8	90.0	66846	0	1	0	0	11.1101	1.79176
73	Connecti	2006	6.50	36.0	88.4	71066	0	1	0	0	11.1714	1.87180
74	Connecti	2007	6.80	34.7	88.0	71029	0	1	0	0	11.1708	1.91692
75	Connecti	2008	6.10	35.6	88.6	68978	0	1	0	0	11.1415	1.80829
76	Connecti	2009	5.60	35.6	88.6	69421	0	1	0	0	11.1479	1.72277
77	Connecti	2010	5.20	35.5	88.6	69502	0	1	0	0	11.1491	1.64866
78	Delaware	2000	9.59	24.0	86.1	67153	0	1	0	0	11.1147	2.26072
79	Delaware	2001	10.61	28.6	84.7	64330	0	1	0	0	11.0718	2.36180
80	Delaware	2002	8.57	29.5	88.5	63369	0	1	0	0	11.0567	2.14827
81	Delaware	2003	9.44	28.1	88.7	61197	0	1	0	0	11.0219	2.24496
82	Delaware	2004	8.90	26.9	86.5	58407	0	1	0	0	10.9752	2.18605
83	Delaware	2005	9.40	25.6	86.9	60260	0	1	0	0	11.0064	2.24071
84	Delaware	2006	8.80	26.2	86.0	59717	0	1	0	0	10.9974	2.17475
85	Delaware	2007	7.80	26.1	87.4	60451	0	1	0	0	11.0096	2.05412
86	Delaware	2008	8.80	27.5	87.2	54069	0	1	0	0	10.8980	2.17475
87	Delaware	2009	8.20	28.7	87.4	55787	0	1	0	0	10.9293	2.10413
88	Delaware	2010	8.00	27.8	87.7	58145	0	1	0	0	10.9707	2.07944
89	Florida	2000	6.91	22.8	84.0	51808	1	0	0	0	10.8553	1.93297
90	Florida	2001	7.25	24.6	84.1	47235	1	0	0	0	10.7629	1.98100
91	Florida	2002	7.53	25.7	83.3	48530	1	0	0	0	10.7899	2.01890
92	Florida	2003	7.47	25.8	84.7	48654	1	0	0	0	10.7925	2.01089
93	Florida	2004	7.30	26.0	85.9	49273	1	0	0	0	10.8051	1.98787
94	Florida	2005	7.50	25.4	86.8	50562	1	0	0	0	10.8310	2.01490
95	Florida	2006	7.70	27.2	86.7	52016	1	0	0	0	10.8593	2.04122
96	Florida	2007	7.50	25.8	84.9	50712	1	0	0	0	10.8339	2.01490
97	Florida	2008	7.50	25.8	85.2	47836	1	0	0	0	10.7755	2.01490
98	Florida	2009	7.20	25.3	85.3	48847	1	0	0	0	10.7964	1.97408
99	Florida	2010	6.70	25.8	85.5	46406	1	0	0	0	10.7452	1.90211
100	Georgia	2000	8.45	23.1	82.6	55868	1	0	0	0	10.9307	2.13417
101	Georgia	2001	8.55	24.2	82.5	55218	1	0	0	0	10.9190	2.14593
102	Georgia	2002	8.96	25.0	82.9	54803	1	0	0	0	10.9115	2.19277

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
103	Georgia	2003	8.47	25.0	85.1	52981	1	0	0	0	10.8777	2.13653
104	Georgia	2004	8.80	27.6	85.2	49819	1	0	0	0	10.8162	2.17475
105	Georgia	2005	8.50	27.1	85.7	54016	1	0	0	0	10.8970	2.14007
106	Georgia	2006	8.60	28.1	84.2	56193	1	0	0	0	10.9365	2.15176
107	Georgia	2007	8.30	27.1	82.9	53865	1	0	0	0	10.8942	2.11626
108	Georgia	2008	8.30	27.5	83.9	49297	1	0	0	0	10.8056	2.11626
109	Georgia	2009	7.80	27.5	83.9	46394	1	0	0	0	10.7449	2.05412
110	Georgia	2010	6.50	27.3	84.3	46460	1	0	0	0	10.7463	1.87180
111	Hawaii	2000	8.09	26.3	87.4	68728	0	0	0	0	11.1379	2.09063
112	Hawaii	2001	6.03	27.9	89.1	61525	0	0	0	0	11.0272	1.79675
113	Hawaii	2002	7.44	26.8	87.9	60373	0	0	0	0	11.0083	2.00687
114	Hawaii	2003	7.62	27.0	88.5	64711	0	0	0	0	11.0777	2.03078
115	Hawaii	2004	5.70	26.6	88.0	68366	0	0	0	0	11.1326	1.74047
116	Hawaii	2005	6.60	30.4	87.2	70082	0	0	0	0	11.1574	1.88707
117	Hawaii	2006	6.00	32.3	88.7	68864	0	0	0	0	11.1399	1.79176
118	Hawaii	2007	6.70	29.2	89.4	70897	0	0	0	0	11.1690	1.90211
119	Hawaii	2008	5.80	29.1	90.3	65607	0	0	0	0	11.0914	1.75786
120	Hawaii	2009	6.20	29.6	90.4	59571	0	0	0	0	10.9949	1.82455
121	Hawaii	2010	6.60	29.5	89.9	62700	0	0	0	0	11.0461	1.88707
122	Idaho	2000	7.56	20.0	86.2	50148	0	0	1	0	10.8227	2.02287
123	Idaho	2001	6.28	21.2	87.3	49596	0	0	1	0	10.8117	1.83737
124	Idaho	2002	6.06	20.9	86.8	48136	0	0	1	0	10.7818	1.80171
125	Idaho	2003	7.70	22.5	88.2	52898	0	0	1	0	10.8761	2.04122
126	Idaho	2004	6.20	23.8	87.9	53920	0	0	1	0	10.8953	1.82455
127	Idaho	2005	6.20	25.9	89.1	51957	0	0	1	0	10.8582	1.82455
128	Idaho	2006	6.90	25.1	88.9	52628	0	0	1	0	10.8710	1.93152
129	Idaho	2007	6.80	24.5	88.4	54466	0	0	1	0	10.9053	1.91692
130	Idaho	2008	6.00	24.0	87.9	50569	0	0	1	0	10.8311	1.79176
131	Idaho	2009	5.40	23.9	88.4	50075	0	0	1	0	10.8213	1.68640
132	Idaho	2010	4.70	24.4	88.3	49548	0	0	1	0	10.8107	1.54756
133	Illinois	2000	8.48	27.1	85.5	61419	0	0	0	1	11.0255	2.13771
134	Illinois	2001	7.63	26.7	86.2	59880	0	0	0	1	11.0001	2.03209
135	Illinois	2002	7.39	27.3	85.9	54511	0	0	0	1	10.9062	2.00013
136	Illinois	2003	7.69	28.1	85.9	56370	0	0	0	1	10.9397	2.03992

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
137	Illinois	2004	7.70	27.4	86.8	56010	0	0	0	1	10.9333	2.04122
138	Illinois	2005	7.80	29.6	87.2	56923	0	0	0	1	10.9495	2.05412
139	Illinois	2006	7.70	31.2	87.6	55427	0	0	0	1	10.9228	2.04122
140	Illinois	2007	7.10	29.5	85.7	58145	0	0	0	1	10.9707	1.96009
141	Illinois	2008	7.50	29.9	85.9	56791	0	0	0	1	10.9471	2.01490
142	Illinois	2009	7.10	30.6	86.4	56596	0	0	0	1	10.9437	1.96009
143	Illinois	2010	6.90	30.8	86.9	53421	0	0	0	1	10.8860	1.93152
144	Indiana	2000	7.79	17.1	84.6	54487	0	0	0	1	10.9057	2.05284
145	Indiana	2001	7.54	21.2	84.4	52368	0	0	0	1	10.8661	2.02022
146	Indiana	2002	7.76	23.7	85.3	52389	0	0	0	1	10.8665	2.04898
147	Indiana	2003	5.68	22.2	86.4	52964	0	0	0	1	10.8774	1.73695
148	Indiana	2004	8.10	21.1	87.2	51454	0	0	0	1	10.8484	2.09186
149	Indiana	2005	8.20	22.6	87.2	49912	0	0	0	1	10.8180	2.10413
150	Indiana	2006	8.10	21.9	88.2	51710	0	0	0	1	10.8534	2.09186
151	Indiana	2007	7.70	22.1	85.8	52549	0	0	0	1	10.8695	2.04122
152	Indiana	2008	7.00	22.9	86.2	49610	0	0	0	1	10.8119	1.94591
153	Indiana	2009	7.90	22.5	86.6	47427	0	0	0	1	10.7669	2.06686
154	Indiana	2010	7.60	22.7	87.0	48589	0	0	0	1	10.7912	2.02815
155	Iowa	2000	6.43	25.5	89.7	54655	0	0	0	1	10.9088	1.86097
156	Iowa	2001	5.66	23.9	87.8	53143	0	0	0	1	10.8807	1.73342
157	Iowa	2002	5.32	23.1	88.3	52391	0	0	0	1	10.8665	1.67147
158	Iowa	2003	6.28	24.6	89.7	51665	0	0	0	1	10.8525	1.83737
159	Iowa	2004	5.10	24.3	89.8	52745	0	0	0	1	10.8732	1.62924
160	Iowa	2005	5.50	24.5	89.8	54691	0	0	0	1	10.9095	1.70475
161	Iowa	2006	5.20	24.7	90.4	54806	0	0	0	1	10.9116	1.64866
162	Iowa	2007	5.50	24.3	89.6	54160	0	0	0	1	10.8997	1.70475
163	Iowa	2008	5.60	24.3	90.3	53472	0	0	0	1	10.8869	1.72277
164	Iowa	2009	4.60	25.1	90.5	54296	0	0	0	1	10.9022	1.52606
165	Iowa	2010	4.80	24.9	90.6	51618	0	0	0	1	10.8516	1.56862
166	Kansas	2000	6.55	27.3	88.1	54745	0	0	0	1	10.9104	1.87947
167	Kansas	2001	7.44	27.9	87.8	53712	0	0	0	1	10.8914	2.00687
168	Kansas	2002	7.16	29.1	87.5	54395	0	0	0	1	10.9040	1.96851
169	Kansas	2003	6.64	31.0	88.6	55220	0	0	0	1	10.9191	1.89311
170	Kansas	2004	7.30	30.0	89.6	49919	0	0	0	1	10.8182	1.98787

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
171	Kansas	2005	7.60	30.4	91.4	49430	0	0	0	1	10.8083	2.02815
172	Kansas	2006	7.40	31.6	90.2	51875	0	0	0	1	10.8566	2.00148
173	Kansas	2007	8.10	28.8	89.1	53705	0	0	0	1	10.8913	2.09186
174	Kansas	2008	7.40	29.6	89.5	51057	0	0	0	1	10.8407	2.00148
175	Kansas	2009	7.00	29.5	89.7	47868	0	0	0	1	10.7762	1.94591
176	Kansas	2010	6.20	29.8	89.2	48499	0	0	0	1	10.7893	1.82455
177	Kentucky	2000	7.10	20.5	78.7	48353	1	0	0	0	10.7863	1.96009
178	Kentucky	2001	5.89	20.4	79.0	49850	1	0	0	0	10.8168	1.77326
179	Kentucky	2002	7.17	21.6	80.8	46920	1	0	0	0	10.7562	1.96991
180	Kentucky	2003	6.81	21.3	82.8	46112	1	0	0	0	10.7388	1.91839
181	Kentucky	2004	6.90	21.0	81.8	43287	1	0	0	0	10.6756	1.93152
182	Kentucky	2005	6.80	18.9	78.9	43163	1	0	0	0	10.6727	1.91692
183	Kentucky	2006	7.80	20.2	79.9	44966	1	0	0	0	10.7137	2.05412
184	Kentucky	2007	6.80	20.0	80.1	43689	1	0	0	0	10.6849	1.91692
185	Kentucky	2008	6.90	19.7	81.3	43881	1	0	0	0	10.6892	1.93152
186	Kentucky	2009	7.10	21.0	81.7	45671	1	0	0	0	10.7292	1.96009
187	Kentucky	2010	6.90	20.5	81.9	43287	1	0	0	0	10.6756	1.93152
188	Louisian	2000	9.03	22.5	80.8	40957	1	0	0	0	10.6203	2.20055
189	Louisian	2001	9.96	19.7	81.0	43216	1	0	0	0	10.6740	2.29858
190	Louisian	2002	10.30	22.1	78.8	43405	1	0	0	0	10.6783	2.33214
191	Louisian	2003	9.22	22.3	79.8	41831	1	0	0	0	10.6414	2.22138
192	Louisian	2004	11.00	22.4	78.7	44282	1	0	0	1	10.6983	2.39790
193	Louisian	2005	9.50	19.6	80.2	43795	1	0	0	1	10.6873	2.25129
194	Louisian	2006	12.00	21.2	79.7	41553	1	0	0	1	10.6347	2.48491
195	Louisian	2007	9.40	20.4	79.9	45750	1	0	0	0	10.7309	2.24071
196	Louisian	2008	8.80	20.3	81.2	42191	1	0	0	0	10.6500	2.17475
197	Louisian	2009	8.90	21.4	82.2	48635	1	0	0	0	10.7921	2.18605
198	Louisian	2010	7.70	21.4	81.9	41387	1	0	0	0	10.6307	2.04122
199	Maine	2000	4.85	24.1	89.3	49688	0	1	0	0	10.8135	1.57898
200	Maine	2001	6.18	22.2	85.4	47483	0	1	0	0	10.7681	1.82132
201	Maine	2002	4.28	23.8	87.4	47036	0	1	0	0	10.7587	1.45395
202	Maine	2003	4.75	23.7	86.6	46333	0	1	0	0	10.7436	1.55814
203	Maine	2004	5.60	24.2	87.1	50238	0	1	0	0	10.8245	1.72277
204	Maine	2005	6.90	24.3	87.2	51660	0	1	0	0	10.8524	1.93152

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
205	Maine	2006	6.40	26.9	89.3	51977	0	1	0	0	10.8586	1.85630
206	Maine	2007	6.20	26.7	89.4	53037	0	1	0	0	10.8787	1.82455
207	Maine	2008	5.40	25.4	89.7	50365	0	1	0	0	10.8271	1.68640
208	Maine	2009	5.70	26.9	90.2	50850	0	1	0	0	10.8366	1.74047
209	Maine	2010	5.30	26.8	90.3	50475	0	1	0	0	10.8292	1.66771
210	Maryland	2000	7.51	32.3	85.7	72713	0	1	0	0	11.1943	2.01624
211	Maryland	2001	8.07	35.7	88.1	69424	0	1	0	0	11.1480	2.08815
212	Maryland	2002	7.57	37.6	87.5	71993	0	1	0	0	11.1843	2.02419
213	Maryland	2003	8.23	37.2	87.6	65310	0	1	0	0	11.0869	2.10779
214	Maryland	2004	8.50	35.2	87.4	69413	0	1	0	0	11.1478	2.14007
215	Maryland	2005	7.40	36.3	86.9	71171	0	1	0	0	11.1728	2.00148
216	Maryland	2006	8.30	35.7	87.2	72505	0	1	0	0	11.1914	2.11626
217	Maryland	2007	8.20	35.2	87.4	72678	0	1	0	0	11.1938	2.10413
218	Maryland	2008	8.20	35.2	88.0	67942	0	1	0	0	11.1264	2.10413
219	Maryland	2009	7.50	35.7	88.2	68710	0	1	0	0	11.1377	2.01490
220	Maryland	2010	7.00	36.1	88.1	67609	0	1	0	0	11.1215	1.94591
221	Massachu	2000	4.61	32.7	85.1	62337	0	1	0	0	11.0403	1.52823
222	Massachu	2001	4.98	32.5	85.7	67768	0	1	0	0	11.1238	1.60543
223	Massachu	2002	4.85	34.3	86.5	63630	0	1	0	0	11.0608	1.57898
224	Massachu	2003	5.05	37.6	87.1	63614	0	1	0	0	11.0606	1.61939
225	Massachu	2004	5.00	36.7	86.9	63233	0	1	0	0	11.0546	1.60944
226	Massachu	2005	5.40	36.6	87.5	65884	0	1	0	0	11.0957	1.68640
227	Massachu	2006	5.00	40.4	89.9	63010	0	1	0	0	11.0510	1.60944
228	Massachu	2007	5.10	37.9	88.4	64741	0	1	0	0	11.0781	1.62924
229	Massachu	2008	5.30	38.1	88.7	64326	0	1	0	0	11.0717	1.66771
230	Massachu	2009	5.20	38.2	89.0	63557	0	1	0	0	11.0597	1.64866
231	Massachu	2010	4.50	39.0	89.1	64169	0	1	0	0	11.0693	1.50408
232	Michigan	2000	8.19	23.0	86.2	60683	0	0	0	1	11.0134	2.10291
233	Michigan	2001	7.99	24.0	86.3	58422	0	0	0	1	10.9754	2.07819
234	Michigan	2002	8.13	22.5	86.5	54517	0	0	0	1	10.9063	2.09556
235	Michigan	2003	8.57	23.3	87.6	56207	0	0	0	1	10.9368	2.14827
236	Michigan	2004	7.60	24.4	87.9	51365	0	0	0	1	10.8467	2.02815
237	Michigan	2005	8.10	24.6	88.6	54024	0	0	0	1	10.8972	2.09186
238	Michigan	2006	7.50	26.1	89.7	55399	0	0	0	1	10.9223	2.01490

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
239	Michigan	2007	8.00	24.7	87.4	54672	0	0	0	1	10.9091	2.07944
240	Michigan	2008	7.50	24.7	88.1	53095	0	0	0	1	10.8798	2.01490
241	Michigan	2009	7.60	24.6	87.9	49235	0	0	0	1	10.8044	2.02815
242	Michigan	2010	7.10	25.2	88.7	48733	0	0	0	1	10.7941	1.96009
243	Minnesot	2000	5.62	31.2	90.8	72335	0	0	0	1	11.1891	1.72633
244	Minnesot	2001	5.40	31.4	92.6	68323	0	0	0	1	11.1320	1.68640
245	Minnesot	2002	5.34	30.5	92.2	69714	0	0	0	1	11.1522	1.67523
246	Minnesot	2003	4.63	32.7	91.6	65946	0	0	0	1	11.0966	1.53256
247	Minnesot	2004	4.70	32.5	92.3	68199	0	0	0	1	11.1302	1.54756
248	Minnesot	2005	5.20	34.2	92.7	63765	0	0	0	1	11.0630	1.64866
249	Minnesot	2006	5.40	33.5	93.0	64013	0	0	0	1	11.0668	1.68640
250	Minnesot	2007	5.60	31.0	91.0	64293	0	0	0	1	11.0712	1.72277
251	Minnesot	2008	6.00	31.5	91.6	58573	0	0	0	1	10.9780	1.79176
252	Minnesot	2009	4.70	31.5	91.5	60043	0	0	0	1	11.0028	1.54756
253	Minnesot	2010	4.50	31.8	91.8	55099	0	0	0	1	10.9169	1.50408
254	Mississi	2000	10.64	18.7	80.3	45732	1	0	0	0	10.7306	2.36462
255	Mississi	2001	10.52	23.3	81.7	39116	1	0	0	0	10.5743	2.35328
256	Mississi	2002	10.19	20.9	79.1	39415	1	0	0	0	10.5819	2.32141
257	Mississi	2003	7.90	19.3	81.2	40859	1	0	0	0	10.6179	2.06686
258	Mississi	2004	10.00	20.1	83.0	42247	1	0	0	1	10.6513	2.30259
259	Mississi	2005	12.00	21.8	79.8	38666	1	0	0	1	10.5627	2.48491
260	Mississi	2006	12.00	21.1	81.1	39554	1	0	0	1	10.5854	2.48491
261	Mississi	2007	10.00	18.9	78.5	41282	1	0	0	1	10.6282	2.30259
262	Mississi	2008	10.00	19.4	79.9	38867	1	0	0	1	10.5679	2.30259
263	Mississi	2009	10.00	19.6	80.4	37550	1	0	0	1	10.5334	2.30259
264	Mississi	2010	9.60	19.5	81.0	40186	1	0	0	1	10.6013	2.26176
265	Missouri	2000	7.19	26.2	86.6	60129	0	0	0	1	11.0042	1.97269
266	Missouri	2001	7.34	25.3	88.2	53614	0	0	0	1	10.8896	1.99334
267	Missouri	2002	8.48	26.7	88.1	54595	0	0	0	1	10.9077	2.13771
268	Missouri	2003	10.85	26.6	88.3	54634	0	0	0	1	10.9084	2.38417
269	Missouri	2004	7.60	28.1	87.9	51221	0	0	0	1	10.8439	2.02815
270	Missouri	2005	7.70	25.0	85.5	50558	0	0	0	1	10.8309	2.04122
271	Missouri	2006	7.70	24.3	87.1	50767	0	0	0	1	10.8350	2.04122
272	Missouri	2007	7.70	24.5	85.6	50945	0	0	0	1	10.8385	2.04122

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
273	Missouri	2008	7.30	25.0	86.5	49096	0	0	0	1	10.8015	1.98787
274	Missouri	2009	7.30	25.2	86.8	52206	0	0	0	1	10.8630	1.98787
275	Missouri	2010	6.70	25.6	86.9	48249	0	0	0	1	10.7841	1.90211
276	Montana	2000	6.02	23.8	89.6	43703	0	0	1	0	10.6852	1.79509
277	Montana	2001	7.29	22.8	90.2	41665	0	0	1	0	10.6374	1.98650
278	Montana	2002	7.51	23.6	89.7	44460	0	0	1	0	10.7023	2.01624
279	Montana	2003	7.18	24.9	90.1	42581	0	0	1	0	10.6592	1.97130
280	Montana	2004	4.60	25.5	91.9	41276	0	0	1	0	10.6280	1.52606
281	Montana	2005	7.10	25.4	92.1	43885	0	0	1	0	10.6893	1.96009
282	Montana	2006	6.20	25.1	91.4	46811	0	0	1	0	10.7539	1.82455
283	Montana	2007	6.40	27.0	90.0	48343	0	0	1	0	10.7861	1.85630
284	Montana	2008	7.00	27.1	90.9	45749	0	0	1	0	10.7309	1.94591
285	Montana	2009	5.90	27.4	90.8	43287	0	0	1	0	10.6756	1.77495
286	Montana	2010	5.80	28.8	91.7	43471	0	0	1	0	10.6798	1.75786
287	Nebraska	2000	7.18	24.6	90.4	55667	0	0	0	1	10.9271	1.97130
288	Nebraska	2001	6.77	25.7	89.7	56560	0	0	0	1	10.9431	1.91250
289	Nebraska	2002	7.01	27.1	89.8	54621	0	0	0	1	10.9082	1.94734
290	Nebraska	2003	4.17	26.8	90.8	54898	0	0	0	1	10.9132	1.42792
291	Nebraska	2004	6.70	24.8	91.3	53225	0	0	0	1	10.8823	1.90211
292	Nebraska	2005	5.80	25.4	89.8	56364	0	0	0	1	10.9396	1.75786
293	Nebraska	2006	5.80	27.2	91.0	54828	0	0	0	1	10.9120	1.75786
294	Nebraska	2007	6.90	27.5	89.6	54455	0	0	0	1	10.9051	1.93152
295	Nebraska	2008	5.50	27.1	90.1	54097	0	0	0	1	10.8985	1.70475
296	Nebraska	2009	5.60	27.4	89.8	53090	0	0	0	1	10.8797	1.72277
297	Nebraska	2010	5.20	28.6	90.4	55291	0	0	0	1	10.9204	1.64866
298	Nevada	2000	6.45	19.3	82.8	61011	0	0	1	0	11.0188	1.86408
299	Nevada	2001	5.61	20.8	84.9	58884	0	0	1	0	10.9833	1.72455
300	Nevada	2002	6.08	22.1	85.8	57380	0	0	1	0	10.9575	1.80500
301	Nevada	2003	8.18	21.2	85.6	56409	0	0	1	0	10.9404	2.10169
302	Nevada	2004	6.50	24.5	86.3	57380	0	0	1	0	10.9575	1.87180
303	Nevada	2005	6.00	23.4	86.6	56701	0	0	1	0	10.9455	1.79176
304	Nevada	2006	6.80	20.8	85.6	59539	0	0	1	0	10.9944	1.91692
305	Nevada	2007	6.60	21.8	83.7	59863	0	0	1	0	10.9998	1.88707
306	Nevada	2008	5.50	21.9	83.5	58380	0	0	1	0	10.9747	1.70475

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
307	Nevada	2009	5.90	21.8	83.9	55059	0	0	1	0	10.9162	1.77495
308	Nevada	2010	5.50	21.7	84.7	53918	0	0	1	0	10.8952	1.70475
309	NewHamps	2000	5.82	30.1	88.1	67901	0	1	0	0	11.1258	1.76130
310	NewHamps	2001	3.82	31.6	89.3	66572	0	1	0	0	11.1060	1.34025
311	NewHamps	2002	4.99	30.1	90.2	70607	0	1	0	0	11.1649	1.60744
312	NewHamps	2003	5.60	34.0	92.1	69371	0	1	0	0	11.1472	1.72277
313	NewHamps	2004	5.60	35.4	90.8	69063	0	1	0	0	11.1428	1.72277
314	NewHamps	2005	5.00	32.8	91.9	67021	0	1	0	0	11.1128	1.60944
315	NewHamps	2006	5.80	32.1	91.6	70572	0	1	0	0	11.1644	1.75786
316	NewHamps	2007	5.40	32.5	90.5	74833	0	1	0	0	11.2230	1.68640
317	NewHamps	2008	3.90	33.3	90.9	70571	0	1	0	0	11.1644	1.36098
318	NewHamps	2009	5.00	32.0	91.3	68651	0	1	0	0	11.1368	1.60944
319	NewHamps	2010	3.90	32.8	91.5	70170	0	1	0	0	11.1587	1.36098
320	NewJerse	2000	6.26	30.1	87.3	67207	0	1	0	0	11.1155	1.83418
321	NewJerse	2001	6.40	30.7	86.6	67143	0	1	0	0	11.1146	1.85630
322	NewJerse	2002	5.72	31.4	85.9	69645	0	1	0	0	11.1512	1.74397
323	NewJerse	2003	5.68	33.4	86.2	69968	0	1	0	0	11.1558	1.73695
324	NewJerse	2004	5.70	34.6	87.6	67191	0	1	0	0	11.1153	1.74047
325	NewJerse	2005	5.40	36.3	86.9	74530	0	1	0	0	11.2190	1.68640
326	NewJerse	2006	5.90	35.6	86.7	77506	0	1	0	0	11.2581	1.77495
327	NewJerse	2007	5.50	33.9	87.0	67006	0	1	0	0	11.1125	1.70475
328	NewJerse	2008	5.80	34.4	87.4	69643	0	1	0	0	11.1511	1.75786
329	NewJerse	2009	5.30	34.5	87.4	69342	0	1	0	0	11.1468	1.66771
330	NewJerse	2010	4.90	35.4	88.0	66311	0	1	0	0	11.1021	1.58924
331	NewMexic	2000	6.72	23.6	82.2	46791	0	0	1	0	10.7534	1.90509
332	NewMexic	2001	6.38	22.0	81.2	42959	0	0	1	0	10.6680	1.85317
333	NewMexic	2002	6.13	25.4	81.6	45254	0	0	1	0	10.7200	1.81319
334	NewMexic	2003	6.09	23.7	81.7	43826	0	0	1	0	10.6880	1.80665
335	NewMexic	2004	6.50	25.1	82.9	48091	0	0	1	0	10.7809	1.87180
336	NewMexic	2005	6.20	27.4	81.2	45807	0	0	1	0	10.7322	1.82455
337	NewMexic	2006	6.10	26.7	81.8	45584	0	0	1	0	10.7273	1.80829
338	NewMexic	2007	6.50	24.8	82.3	49119	0	0	1	0	10.8020	1.87180
339	NewMexic	2008	5.80	24.7	82.4	44898	0	0	1	0	10.7121	1.75786
340	NewMexic	2009	5.20	25.3	82.8	46611	0	0	1	0	10.7496	1.64866

^The correlation ran is in Appendix A.

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^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
341	NewMexic	2010	5.60	25.0	83.3	47531	0	0	1	0	10.7691	1.72277
342	NewYork	2000	6.40	28.7	82.5	54325	0	1	0	0	10.9027	1.85630
343	NewYork	2001	5.85	28.9	83.2	54619	0	1	0	0	10.9081	1.76644
344	NewYork	2002	6.00	28.8	83.7	53561	0	1	0	0	10.8886	1.79176
345	NewYork	2003	7.28	29.6	84.2	53418	0	1	0	0	10.8859	1.98513
346	NewYork	2004	6.20	30.6	85.4	54274	0	1	0	0	10.9018	1.82455
347	NewYork	2005	6.00	30.4	85.7	55486	0	1	0	0	10.9239	1.79176
348	NewYork	2006	6.00	32.2	85.1	54915	0	1	0	0	10.9135	1.79176
349	NewYork	2007	5.80	31.7	84.1	54200	0	1	0	0	10.9004	1.75786
350	NewYork	2008	5.70	31.9	84.1	53812	0	1	0	0	10.8933	1.74047
351	NewYork	2009	5.60	32.4	84.7	53755	0	1	0	0	10.8922	1.72277
352	NewYork	2010	5.40	32.5	84.9	52424	0	1	0	0	10.8671	1.68640
353	NorthCar	2000	8.60	23.2	79.2	51089	1	0	0	0	10.8413	2.15176
354	NorthCar	2001	8.56	23.1	80.0	49493	1	0	0	0	10.8096	2.14710
355	NorthCar	2002	8.14	22.4	80.1	46604	1	0	0	0	10.7494	2.09679
356	NorthCar	2003	5.48	23.8	81.4	46540	1	0	0	0	10.7481	1.70111
357	NorthCar	2004	9.00	23.4	80.9	48912	1	0	0	0	10.7978	2.19722
358	NorthCar	2005	9.00	25.3	84.0	49464	1	0	0	0	10.8090	2.19722
359	NorthCar	2006	8.40	25.6	84.2	45321	1	0	0	0	10.7215	2.12823
360	NorthCar	2007	8.70	25.6	83.0	48186	1	0	0	0	10.7828	2.16332
361	NorthCar	2008	8.30	26.1	83.6	45781	1	0	0	0	10.7316	2.11626
362	NorthCar	2009	8.00	26.5	84.3	44859	1	0	0	0	10.7113	2.07944
363	NorthCar	2010	7.00	26.5	84.7	46157	1	0	0	0	10.7398	1.94591
364	NorthDak	2000	8.34	22.6	85.5	47995	0	0	0	1	10.7789	2.12106
365	NorthDak	2001	8.91	24.4	87.0	46421	0	0	0	1	10.7455	2.18717
366	NorthDak	2002	6.32	25.3	89.0	46202	0	0	0	1	10.7408	1.84372
367	NorthDak	2003	5.71	25.2	89.7	50449	0	0	0	1	10.8287	1.74222
368	NorthDak	2004	5.70	25.2	89.5	47675	0	0	0	1	10.7722	1.74047
369	NorthDak	2005	6.20	27.2	90.0	49624	0	0	0	1	10.8122	1.82455
370	NorthDak	2006	5.90	28.7	88.7	46745	0	0	0	1	10.7525	1.77495
371	NorthDak	2007	7.60	25.7	89.0	52274	0	0	0	1	10.8643	2.02815
372	NorthDak	2008	6.00	26.9	89.6	52927	0	0	0	1	10.8767	1.79176
373	NorthDak	2009	6.10	25.8	90.1	53604	0	0	0	1	10.8894	1.80829
374	NorthDak	2010	6.90	27.6	90.3	53714	0	0	0	1	10.8914	1.93152

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^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
375	Ohio	2000	7.66	24.6	87.0	57283	0	0	0	1	10.9558	2.03601
376	Ohio	2001	7.65	24.1	88.2	54192	0	0	0	1	10.9003	2.03471
377	Ohio	2002	7.94	24.5	87.3	54478	0	0	0	1	10.9056	2.07191
378	Ohio	2003	7.76	25.0	87.2	54332	0	0	0	1	10.9029	2.04898
379	Ohio	2004	7.80	24.6	88.1	52337	0	0	0	1	10.8655	2.05412
380	Ohio	2005	8.50	23.0	87.9	51989	0	0	0	1	10.8588	2.14007
381	Ohio	2006	8.00	23.3	88.1	52271	0	0	0	1	10.8642	2.07944
382	Ohio	2007	7.80	24.1	87.1	54372	0	0	0	1	10.9036	2.05412
383	Ohio	2008	7.80	24.1	87.6	50051	0	0	0	1	10.8208	2.05412
384	Ohio	2009	7.80	24.1	87.6	49112	0	0	0	1	10.8019	2.05412
385	Ohio	2010	7.70	24.6	88.1	48322	0	0	0	1	10.7856	2.04122
386	Oklahoma	2000	8.40	22.5	86.1	43243	1	0	0	0	10.6746	2.12823
387	Oklahoma	2001	7.36	21.1	85.8	46182	1	0	0	0	10.7403	1.99606
388	Oklahoma	2002	8.24	20.4	85.1	46532	1	0	0	0	10.7479	2.10900
389	Oklahoma	2003	7.69	24.3	85.7	44821	1	0	0	0	10.7104	2.03992
390	Oklahoma	2004	8.30	22.9	85.2	48154	1	0	0	0	10.7822	2.11626
391	Oklahoma	2005	8.20	24.0	85.2	44276	1	0	0	0	10.6982	2.10413
392	Oklahoma	2006	8.40	22.9	87.5	44229	1	0	0	0	10.6971	2.12823
393	Oklahoma	2007	8.80	22.8	84.8	47857	1	0	0	0	10.7760	2.17475
394	Oklahoma	2008	7.40	22.2	85.5	49173	1	0	0	0	10.8031	2.00148
395	Oklahoma	2009	8.10	22.7	85.6	49111	1	0	0	0	10.8018	2.09186
396	Oklahoma	2010	7.80	22.9	86.2	45392	1	0	0	0	10.7231	2.05412
397	Oregon	2000	5.57	27.2	88.1	56665	0	0	1	0	10.9449	1.71740
398	Oregon	2001	5.36	27.2	86.6	53528	0	0	1	0	10.8880	1.67896
399	Oregon	2002	5.71	27.1	87.7	53352	0	0	1	0	10.8847	1.74222
400	Oregon	2003	5.59	26.4	86.9	51982	0	0	1	0	10.8587	1.72098
401	Oregon	2004	5.70	25.9	87.4	49831	0	0	1	0	10.8164	1.74047
402	Oregon	2005	5.90	29.0	88.6	51937	0	0	1	0	10.8578	1.77495
403	Oregon	2006	5.80	28.3	89.7	53627	0	0	1	0	10.8898	1.75786
404	Oregon	2007	5.90	28.3	88.0	55631	0	0	1	0	10.9265	1.77495
405	Oregon	2008	5.30	28.1	88.6	55162	0	0	1	0	10.9180	1.66771
406	Oregon	2009	4.90	29.2	89.1	52558	0	0	1	0	10.8697	1.58924
407	Oregon	2010	4.90	28.8	88.8	53289	0	0	1	0	10.8835	1.58924
408	Pennsylv	2000	7.10	24.3	85.7	56235	0	1	0	0	10.9373	1.96009

^The correlation ran is in Appendix A.

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^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
409	Pennsylv	2001	7.21	25.8	85.9	56415	0	1	0	0	10.9405	1.97547
410	Pennsylv	2002	7.62	26.1	86.1	54240	0	1	0	0	10.9012	2.03078
411	Pennsylv	2003	7.34	24.8	86.0	53599	0	1	0	0	10.8893	1.99334
412	Pennsylv	2004	7.30	25.3	86.5	53614	0	1	0	0	10.8896	1.98787
413	Pennsylv	2005	7.50	26.0	86.3	54455	0	1	0	0	10.9051	2.01490
414	Pennsylv	2006	7.90	26.6	87.5	55206	0	1	0	0	10.9188	2.06686
415	Pennsylv	2007	7.70	25.8	86.8	53639	0	1	0	0	10.8900	2.04122
416	Pennsylv	2008	7.50	26.3	87.5	54816	0	1	0	0	10.9117	2.01490
417	Pennsylv	2009	7.30	26.4	87.9	51567	0	1	0	0	10.8506	1.98787
418	Pennsylv	2010	7.30	27.1	88.4	50879	0	1	0	0	10.8372	1.98787
419	RhodeIsl	2000	6.24	26.4	81.3	56263	0	1	0	0	10.9378	1.83098
420	RhodeIsl	2001	6.84	27.4	78.7	59299	0	1	0	0	10.9903	1.92279
421	RhodeIsl	2002	7.06	30.1	80.1	54137	0	1	0	0	10.8993	1.95445
422	RhodeIsl	2003	6.74	27.6	81.0	55818	0	1	0	0	10.9299	1.90806
423	RhodeIsl	2004	5.20	27.2	81.1	58269	0	1	0	0	10.9728	1.64866
424	RhodeIsl	2005	6.80	29.2	83.9	58200	0	1	0	0	10.9716	1.91692
425	RhodeIsl	2006	6.40	30.9	84.0	61195	0	1	0	0	11.0218	1.85630
426	RhodeIsl	2007	7.50	29.8	83.0	60032	0	1	0	0	11.0026	2.01490
427	RhodeIsl	2008	6.00	30.0	83.7	56777	0	1	0	0	10.9469	1.79176
428	RhodeIsl	2009	6.40	30.5	84.7	55273	0	1	0	0	10.9200	1.85630
429	RhodeIsl	2010	7.20	30.2	83.5	54364	0	1	0	0	10.9035	1.97408
430	SouthCar	2000	8.77	19.0	83.0	50093	1	0	0	0	10.8216	2.17134
431	SouthCar	2001	9.00	23.4	81.9	48941	1	0	0	0	10.7984	2.19722
432	SouthCar	2002	9.31	23.3	80.2	48260	1	0	0	0	10.7844	2.23109
433	SouthCar	2003	8.34	22.3	80.8	48038	1	0	0	0	10.7797	2.12106
434	SouthCar	2004	9.40	24.9	83.6	47032	1	0	0	0	10.7586	2.24071
435	SouthCar	2005	9.70	24.2	83.0	47316	1	0	0	0	10.7646	2.27213
436	SouthCar	2006	8.80	22.6	83.1	45116	1	0	0	0	10.7170	2.17475
437	SouthCar	2007	8.60	23.5	82.1	48961	1	0	0	0	10.7988	2.15176
438	SouthCar	2008	8.00	23.7	83.2	44955	1	0	0	0	10.7134	2.07944
439	SouthCar	2009	7.10	24.3	83.6	43998	1	0	0	0	10.6919	1.96009
440	SouthCar	2010	7.30	24.5	84.1	43912	1	0	0	0	10.6899	1.98787
441	SouthDak	2000	5.22	25.7	91.8	48633	0	0	0	1	10.7921	1.65250
442	SouthDak	2001	7.25	23.6	87.7	51450	0	0	0	1	10.8484	1.98100

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
443	SouthDak	2002	6.73	23.6	89.2	48338	0	0	0	1	10.7860	1.90658
444	SouthDak	2003	6.62	23.9	88.7	49340	0	0	0	1	10.8065	1.89010
445	SouthDak	2004	8.40	25.5	87.5	49969	0	0	0	1	10.8192	2.12823
446	SouthDak	2005	7.40	25.0	88.4	50752	0	0	0	1	10.8347	2.00148
447	SouthDak	2006	7.20	25.3	89.9	51732	0	0	0	1	10.8538	1.97408
448	SouthDak	2007	6.70	25.0	88.2	51403	0	0	0	1	10.8475	1.90211
449	SouthDak	2008	8.60	25.1	90.3	55027	0	0	0	1	10.9156	2.15176
450	SouthDak	2009	6.80	25.1	89.9	49056	0	0	0	1	10.8007	1.91692
451	SouthDak	2010	7.00	26.3	89.6	47760	0	0	0	1	10.7739	1.94591
452	Tennesse	2000	9.11	22.0	79.9	45461	1	0	0	0	10.7246	2.20937
453	Tennesse	2001	8.71	21.0	78.1	46408	1	0	0	0	10.7452	2.16447
454	Tennesse	2002	9.31	21.5	80.1	47262	1	0	0	0	10.7635	2.23109
455	Tennesse	2003	9.23	23.5	81.0	46845	1	0	0	0	10.7546	2.22246
456	Tennesse	2004	8.80	24.3	82.9	46279	1	0	0	0	10.7424	2.17475
457	Tennesse	2005	9.30	21.5	81.8	46347	1	0	0	0	10.7439	2.23001
458	Tennesse	2006	9.10	22.0	80.7	46341	1	0	0	0	10.7438	2.20827
459	Tennesse	2007	8.70	21.8	81.4	45619	1	0	0	0	10.7281	2.16332
460	Tennesse	2008	8.20	22.9	83.0	42339	1	0	0	0	10.6535	2.10413
461	Tennesse	2009	8.20	23.0	83.1	43372	1	0	0	0	10.6776	2.10413
462	Tennesse	2010	8.00	23.1	83.6	40640	1	0	0	0	10.6125	2.07944
463	Texas	2000	5.60	23.9	79.2	51479	1	0	0	0	10.8489	1.72277
464	Texas	2001	5.87	23.8	78.4	52992	1	0	0	0	10.8779	1.76985
465	Texas	2002	6.32	26.2	78.1	51242	1	0	0	0	10.8443	1.84372
466	Texas	2003	6.53	24.7	77.2	49027	1	0	0	0	10.8001	1.87641
467	Texas	2004	6.50	24.5	78.3	50321	1	0	0	0	10.8262	1.87180
468	Texas	2005	6.80	25.5	78.2	48718	1	0	0	0	10.7938	1.91692
469	Texas	2006	6.60	25.5	78.7	49318	1	0	0	0	10.8060	1.88707
470	Texas	2007	6.70	25.2	79.1	50999	1	0	0	0	10.8396	1.90211
471	Texas	2008	6.40	25.3	79.6	49578	1	0	0	0	10.8113	1.85630
472	Texas	2009	6.20	25.5	79.9	50821	1	0	0	0	10.8361	1.82455
473	Texas	2010	6.20	25.9	80.7	49775	1	0	0	0	10.8153	1.82455
474	Utah	2000	5.32	26.4	90.7	63400	0	0	1	0	11.0572	1.67147
475	Utah	2001	4.90	27.9	90.0	61399	0	0	1	0	11.0251	1.58924
476	Utah	2002	5.55	26.8	91.0	61085	0	0	1	0	11.0200	1.71380

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
477	Utah	2003	5.01	28.4	89.4	61516	0	0	1	0	11.0271	1.61144
478	Utah	2004	5.40	30.8	91.0	61837	0	0	1	0	11.0323	1.68640
479	Utah	2005	4.70	29.8	92.5	64468	0	0	1	0	11.0739	1.54756
480	Utah	2006	5.40	27.0	91.2	62211	0	0	1	0	11.0383	1.68640
481	Utah	2007	5.30	28.7	90.2	59277	0	0	1	0	10.9900	1.66771
482	Utah	2008	5.10	29.1	90.4	66690	0	0	1	0	11.1078	1.62924
483	Utah	2009	5.40	28.5	90.4	62613	0	0	1	0	11.0447	1.68640
484	Utah	2010	4.80	29.3	90.6	59711	0	0	1	0	10.9973	1.56862
485	Vermont	2000	6.46	28.8	90.0	52792	0	1	0	0	10.8741	1.86563
486	Vermont	2001	5.66	29.0	86.8	52907	0	1	0	0	10.8763	1.73342
487	Vermont	2002	4.38	30.8	87.4	54880	0	1	0	0	10.9129	1.47705
488	Vermont	2003	7.68	31.3	88.9	54008	0	1	0	0	10.8969	2.03862
489	Vermont	2004	4.60	34.2	90.8	57532	0	1	0	0	10.9601	1.52606
490	Vermont	2005	6.70	34.4	90.0	59635	0	1	0	0	10.9960	1.90211
491	Vermont	2006	5.90	34.0	91.0	59196	0	1	0	0	10.9886	1.77495
492	Vermont	2007	5.10	33.6	90.3	52479	0	1	0	0	10.8682	1.62924
493	Vermont	2008	4.60	32.1	90.6	54074	0	1	0	0	10.8981	1.52606
494	Vermont	2009	6.30	33.1	91.0	56005	0	1	0	0	10.9332	1.84055
495	Vermont	2010	4.40	33.6	91.0	58897	0	1	0	0	10.9835	1.48160
496	Virginia	2000	6.91	31.9	86.6	62884	1	0	0	0	11.0490	1.93297
497	Virginia	2001	7.43	30.6	84.6	65159	1	0	0	0	11.0846	2.00553
498	Virginia	2002	7.39	34.6	86.7	63344	1	0	0	0	11.0563	2.00013
499	Virginia	2003	5.16	34.2	87.8	68393	1	0	0	0	11.1330	1.64094
500	Virginia	2004	7.70	33.1	88.4	62166	1	0	0	0	11.0376	2.04122
501	Virginia	2005	7.70	30.6	86.0	61058	1	0	0	0	11.0196	2.04122
502	Virginia	2006	7.50	32.1	86.5	65047	1	0	0	0	11.0829	2.01490
503	Virginia	2007	8.10	33.6	85.9	65514	1	0	0	0	11.0900	2.09186
504	Virginia	2008	7.10	33.7	85.9	66102	1	0	0	0	11.0990	1.96009
505	Virginia	2009	7.50	34.0	86.6	64765	1	0	0	0	11.0785	2.01490
506	Virginia	2010	7.00	34.2	86.5	63572	1	0	0	0	11.0599	1.94591
507	Washingt	2000	5.20	28.6	91.8	56700	0	0	1	0	10.9455	1.64866
508	Washingt	2001	5.69	26.9	89.9	55106	0	0	1	0	10.9170	1.73871
509	Washingt	2002	5.76	28.3	90.4	57667	0	0	1	0	10.9624	1.75094
510	Washingt	2003	5.59	28.8	89.1	59310	0	0	1	0	10.9905	1.72098

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^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
511	Washingt	2004	5.50	29.9	89.7	60684	0	0	1	0	11.0134	1.70475
512	Washingt	2005	5.20	30.9	91.5	59567	0	0	1	0	10.9949	1.64866
513	Washingt	2006	4.80	31.4	91.1	62319	0	0	1	0	11.0400	1.56862
514	Washingt	2007	4.80	30.3	89.3	64317	0	0	1	0	11.0716	1.56862
515	Washingt	2008	5.50	30.7	89.6	60392	0	0	1	0	11.0086	1.70475
516	Washingt	2009	4.90	31.0	89.7	64648	0	0	1	0	11.0767	1.58924
517	Washingt	2010	4.50	31.1	89.8	59145	0	0	1	0	10.9877	1.50408
518	WestVirg	2000	7.38	15.3	77.1	39215	1	0	0	0	10.5768	1.99877
519	WestVirg	2001	7.34	15.8	79.5	38484	1	0	0	0	10.5580	1.99334
520	WestVirg	2002	8.93	15.9	78.5	37471	1	0	0	0	10.5313	2.18942
521	WestVirg	2003	6.54	15.3	78.7	40902	1	0	0	0	10.6189	1.87794
522	WestVirg	2004	7.40	15.3	80.9	40567	1	0	0	0	10.6107	2.00148
523	WestVirg	2005	8.10	15.1	82.5	42865	1	0	0	0	10.6658	2.09186
524	WestVirg	2006	7.30	15.9	81.5	43752	1	0	0	0	10.6863	1.98787
525	WestVirg	2007	7.40	17.3	81.2	46611	1	0	0	0	10.7496	2.00148
526	WestVirg	2008	7.40	17.1	82.2	40517	1	0	0	0	10.6095	2.00148
527	WestVirg	2009	7.80	17.3	82.8	43344	1	0	0	0	10.6769	2.05412
528	WestVirg	2010	7.40	17.5	83.2	45048	1	0	0	0	10.7155	2.00148
529	Wisconsi	2000	6.64	23.8	86.7	60117	0	0	0	1	11.0040	1.89311
530	Wisconsi	2001	7.12	24.9	87.0	58810	0	0	0	1	10.9821	1.96291
531	Wisconsi	2002	6.83	24.7	86.8	58586	0	0	0	1	10.9783	1.92132
532	Wisconsi	2003	7.45	24.1	88.6	57763	0	0	0	1	10.9641	2.00821
533	Wisconsi	2004	6.00	25.6	88.8	55591	0	0	0	1	10.9258	1.79176
534	Wisconsi	2005	6.80	25.0	90.4	52515	0	0	0	1	10.8689	1.91692
535	Wisconsi	2006	6.60	24.6	91.1	58867	0	0	0	1	10.9830	1.88707
536	Wisconsi	2007	6.40	25.4	89.0	56784	0	0	0	1	10.9470	1.85630
537	Wisconsi	2008	7.00	25.7	89.6	54600	0	0	0	1	10.9078	1.94591
538	Wisconsi	2009	6.10	25.7	89.8	54848	0	0	0	1	10.9123	1.80829
539	Wisconsi	2010	5.80	26.3	90.1	53024	0	0	0	1	10.8785	1.75786
540	Wyoming	2000	6.72	20.6	90.0	52839	0	0	1	0	10.8750	1.90509
541	Wyoming	2001	6.05	19.2	90.2	51512	0	0	1	0	10.8496	1.80006
542	Wyoming	2002	6.72	19.6	91.6	50750	0	0	1	0	10.8347	1.90509
543	Wyoming	2003	5.37	20.7	90.9	53127	0	0	1	0	10.8804	1.68083
544	Wyoming	2004	8.90	22.5	91.9	55183	0	0	1	0	10.9184	2.18605

^The correlation ran is in Appendix A.

^^Appendix B contains the random effect Hausman test from the closest fit model

^^^ Appendix C contains the data

Obs	state	year	infdr	ba	hs	medinc	south	northeast	west	midwest	medincl	infdrl
545	Wyoming	2005	7.00	21.9	90.9	52595	0	0	1	0	10.8704	1.94591
546	Wyoming	2006	7.30	20.8	91.1	53571	0	0	1	0	10.8888	1.98787
547	Wyoming	2007	7.30	23.4	91.2	53979	0	0	1	0	10.8964	1.98787
548	Wyoming	2008	7.00	23.6	91.7	56879	0	0	1	0	10.9487	1.94591
549	Wyoming	2009	5.80	23.8	91.8	56168	0	0	1	0	10.9361	1.75786
550	Wyoming	2010	6.60	24.1	92.3	54972	0	0	1	0	10.9146	1.88707

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^^^ Appendix C contains the data