

From John R. Weeks, "The Role of Spatial Analysis in Demographic Research". In M.F. Goodchild and D.G. Janelle (editors), *Spatially Integrated Social Science*, © 2004 Oxford University Press. Permission granted by Oxford University Press for inclusion at <http://www.csiss.org/best-practices/siss/19/>.

Table 19.1. Spatially filtered OLS regression results.

<b>1976</b>					
<b>Variable</b>	<b>Unstandardized coefficient</b>	<b>Standardized beta</b>	<b>t</b>	<b>Significance of t</b>	<b>Z (I)</b>
<i>Dependent variable: NRR</i>					6.82
<i>Filtered Female illiteracy</i>	.417	.149	2.699	.007	-0.99
<i>Filtered Proportion married</i>	1.724	.329	5.907	.000	0.48
<i>Spatial female illiteracy</i>	.640	.167	2.563	.011	10.92
<i>Spatial Proportion married</i>	2.322	.331	5.024	.000	11.76
<i>Sex ratio at reproductive ages</i>	.178	.060	1.223	.222	1.30
<i>Population size</i>	-.00005	-.148	-3.111	.002	0.96
<i>R</i>	.637				
<i>Adjusted R<sup>2</sup></i>	.393				
<i>Z(I) for residuals</i>	0.67				
<b>1986</b>					
<b>Variable</b>	<b>Unstandardized coefficient</b>	<b>Standardized beta</b>	<b>t</b>	<b>Significance of t</b>	<b>Z (I)</b>
<i>Dependent variable: NRR</i>					5.50
<i>Filtered Female illiteracy</i>	1.920	.480	9.496	.000	-.64
<i>Filtered Proportion Married Continued</i>	1.057	.170	3.587	.000	-.36
<i>Filtered sex ratio at reproductive ages</i>	.002	.006	0.136	.892	-.58
<i>Filtered population size</i>	-.00000008	-.063	-.379	.705	.03
<i>Spatial female illiteracy</i>	.913	.157	2.716	.007	26.80
<i>Spatial Proportion married</i>	3.352	.317	4.755	.000	25.72

<i>Spatial sex ratio at reproductive ages</i>	.640	.051	0.332	.332	28.96
<i>Spatial population size</i>	-.00000004	-.021	-.131	.896	.22
<i>R</i>	.717				
<i>Adjusted R<sup>2</sup></i>	.513				
<i>Z(I) for residuals</i>	1.32				

---

Source: Weeks, J. R., M. S. Gadalla, T. Rashed, J. Stanforth, and A. G. Hill. 2000. Spatial variability in fertility in Menoufia, Egypt, assessed through the application of remote sensing and GIS technologies," *Environment and Planning A*, (32): 695-714: Tables 5 and 7. Reproduced with permission from Pion Limited, London.