

APPENDIX 1: PROJECTIONS

Projections use existing trends to predict future conditions. The Piatt County Comprehensive Plan uses projections to determine demand for future land use. Population estimates are used to project demand for residential land uses. The United States Census Annual Population Estimate and Regional Economic Information System (REIS) are sophisticated population estimates that are updated annually.

Table A1-1: Population Estimates

Year	Census Est.	REIS
1969		15495
1970	15509	15525
1971	15700	15683
1972	15900	15893
1973	16000	15964
1974	16000	15958
1975	16200	16210
1976	16400	16402
1977	16400	16445
1978	16500	16549
1979	16500	16454
1980	16581	16610
1981	16701	16701
1982	16493	16493
1983	16404	16404
1984	16305	16305
1985	16192	16192
1986	15978	15978
1987	15830	15830
1988	15777	15777
1989	15571	15571
1990	15548	15550
1991	15629	15602
1992	15699	15650
1993	15992	15919
1994	15999	15904
1995	16155	16037
1996	16285	16144
1997	16478	16311
1998	16430	16231
1999	16623	16388
2000	16369	16374
2001	16338	16338
2002	16247	16247
2003	16410	16410
2004	16482	16482
2005	16602	16602
2006	16688	NA

U.S. Census and Regional Economic Information System

Comparison of Population Projections

Two existing projections were used along with one developed by the Champaign County Regional Planning Commission from Census data. These existing projections were then used to determine a moderate projection which was used to forecast land use demand.

Table A1-2: 30 year projections

	Woods & Poole	DCEO	Census Extrapolated	Average W&P/DCEO	Average all 3
2000	16,374	16,396	16,369	16,385	16,380
2005	16,602	16,573	16,680	16,588	16,618
2010	16,716	17,023	16,997	16,870	16,912
2015	16,756	17,396	17,320	17,076	17,157
2020	16,841	17,748	17,649	17,295	17,413
2025	16,973	17,897	17,984	17,435	17,618
2030	17,167	18,034	18,326	17,601	17,842

Chart A1-1: Population Estimates and Projections

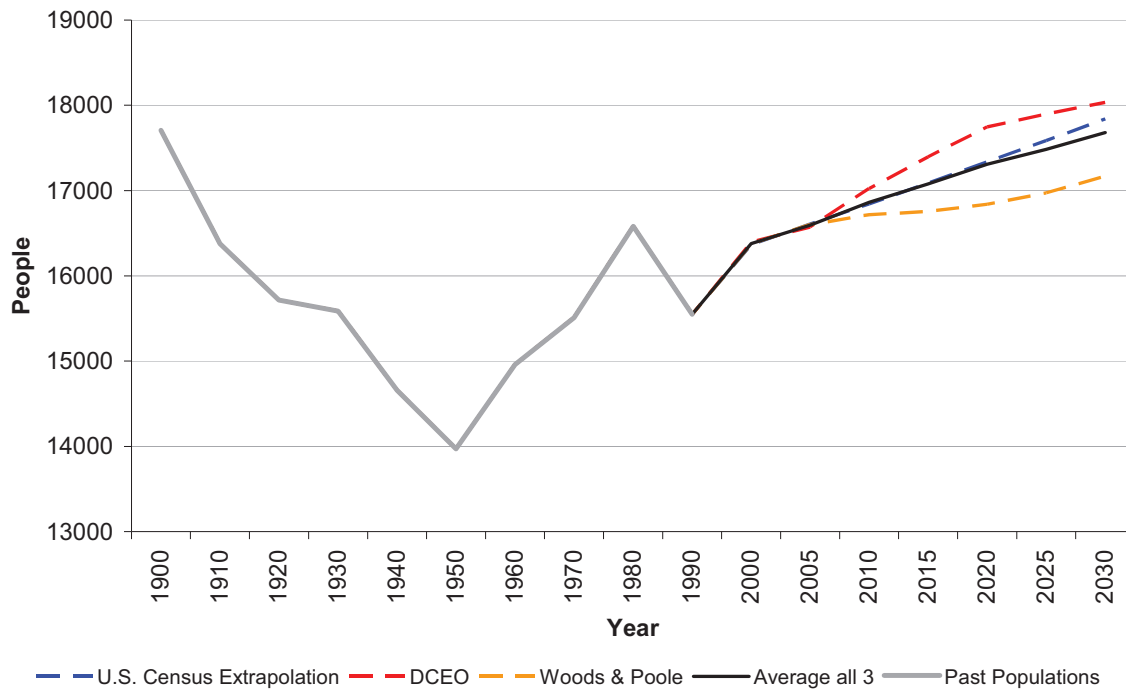


Table A1-3: Projection for Piatt County

*average of all three projections

	1990	1995	Census 2000	1-Jul-00	1-Jul-01	1-Jul-02	1-Jul-03	1-Jul-04	1-Jul-05	2010	2015	2020	2025	2030
Piatt County, Illinois	15,548	16,155	16,365	16,369	16,338	16,251	16,426	16,498	16,680	16,912	17,157	17,413	17,618	17,842*

Projections for 2010 – 2025 were estimated by taking the projected 5 year rate of change for each township and applying it backwards in 5 year increments.

Table A1-4: Projection by Township

	1990	1995	Census 2000	1-Jul-00	1-Jul-01	1-Jul-02	1-Jul-03	1-Jul-04	1-Jul-05	2010	2015	2020	2025	2030
Bement township	1,928	1,972	1,979	1,979	1,961	1,942	1,959	1,953	1,963	1,981	1,999	2,018	2,036	2,055
Blue Ridge township	1,407	1,456	1,414	1,414	1,418	1,406	1,423	1,430	1,446	1,466	1,486	1,507	1,528	1,549
Cerro Gordo township	2,208	2,252	2,199	2,199	2,183	2,160	2,177	2,176	2,189	2,179	2,169	2,159	2,149	2,140
Goose Creek township	848	866	852	852	852	850	862	869	887	891	895	900	904	908
Monticello township	5,339	5,623	5,604	5,604	5,597	5,581	5,634	5,666	5,736	5,831	5,933	6,042	6,111	6,192
Sangamon township	1,481	1,568	2,041	2,041	2,042	2,042	2,072	2,095	2,129	2,208	2,291	2,379	2,454	2,536
Unity township	1,605	1,640	1,560	1,560	1,563	1,547	1,563	1,563	1,572	1,584	1,596	1,609	1,621	1,633
Willow Branch township	732	778	716	720	722	723	736	746	758	772	786	800	815	830
TOTAL	15,548	16,155	16,365	16,369	16,338	16,251	16,426	16,498	16,680	16,912	17,157	17,413	17,618	17,842

No township level projections are available through the 3 sources used for county-level projections. Recent population figures were used to extrapolate township-level forecasts, ensuring that they sum to the "average of 3" projection for Piatt County

Table A1-5: Rate of Change for Townships

	5-year Rate of Change	5-year Rate of Change
Bement Township	0.9%	2.4%
Blue Ridge Township	1.4%	4.3%
Cerro Gordo Township	-0.5%	0.8%
Goose Creek Township	0.5%	1.8%

Rates determined by using 5 – year intervals of existing Census population estimates (90-95, 95-00, 00-05) and the 2030 population projection.

Table A1-6: Projection by Municipality

	1990	1995	Census 2000	1-Jul-00	1-Jul-01	1-Jul-02	1-Jul-03	1-Jul-04	1-Jul-05	2010	2015	2020	2025	2030
Atwood village	1,253	1,258	1,290	1,290	1,282	1,271	1,264	1,256	1,250	1,268	1,287	1,306	1,325	1,345
Bement village	1,668	1,716	1,784	1,784	1,762	1,739	1,749	1,737	1,739	1,764	1,789	1,815	1,841	1,868
Cerro Gordo village	1,436	1,438	1,436	1,436	1,418	1,394	1,398	1,387	1,385	1,385	1,385	1,385	1,385	1,385
Cisco village	282	298	264	288	286	284	286	286	286	280	275	269	264	258
De Land village	458	453	475	475	471	466	468	467	473	471	469	467	465	463
Hammond village	527	536	518	518	526	517	524	522	523	522	521	519	518	517
Mansfield village	929	969	949	949	949	934	939	936	939	943	946	950	954	958
Monticello city	4,549	5,048	5,138	5,146	5,144	5,132	5,179	5,210	5,275	5,407	5,543	5,682	5,824	5,970
TOTAL	11,102	11,716	11,854	11,886	11,838	11,737	11,807	11,801	11,870	12,040	12,215	12,394	12,576	12,764

Atwood and Hammond villages add up to more than the Unity Township total population estimates and projections because all of Atwood Village is considered for the municipal figures, while only the part of Atwood Village that falls in Piatt County is considered for the township figures.

Table A1-7: Rate of Change for Municipalities

	5-year Rate of Change
Atwood village	1.5%
Bement village	1.4%
Cerro Gordo village	0.0%
Cisco village	-2.0%
De Land village	-0.4%
Hammond village	-0.2%
Mansfield village	0.4%
Monticello city	2.5%

Rates determined by using 5 – year intervals of existing Census population estimates (90-95, 95-00, 00-05) and the 2030 population projection.

Projected Residential Land Use Demand

Table A1-8: Population Translated to Demand for Incorporated Residential Land Use

Municipalities	Pop 2000	Pop 2030	Pop Change 2000-2030	% Pop Change 2000-2030	Housing Units 2000	Avg Pop per Housing Unit	Housing Units 2030	Housing Units Dif 00-30
Atwood village	660	715	55	6.3%	284	2.3	308	24
Bement village	1,784	1,868	84	9.5%	723	2.5	757	34
Cerro Gordo village	1,436	1,385	-51	-5.8%	583	2.5	562	-21
Cisco village	288	258	-30	-3.4%	113	2.5	101	-12
De Land village	475	463	-12	-1.4%	206	2.3	201	-5
Hammond village	518	517	-1	-0.1%	244	2.1	244	0
Mansfield village	949	958	9	1.0%	424	2.2	428	4
Monticello city	5,146	5,970	824	93.9%	2,226	2.3	2,583	357
TOTAL	11,256	12,134	878	7.2%	4,803		5,183	380

Atwood village only reflects Piatt County side

In order to determine the estimated demand for new residential development for horizon year 2030, incorporated and unincorporated areas need to be considered separately due to differences in population densities and trends. This methodology assumes that 2000 housing densities will be similar in the horizon year 2030; in other words, within each municipality and township, housing lot sizes and types will generally stay the same.

Municipalities	Housing Density (per sq mile) 2000	Sq Mi 2000	Sq Mi 2030	Dif Sq Mi 00-30
Atwood village	1,033.3	0.30	0.30	0.00
Bement village	890.4	0.78	0.85	0.07
Cerro Gordo village	786.8	0.72	0.71	-0.01
Cisco village	296.5	0.40	0.34	-0.06
De Land village	519.6	0.39	0.39	0.00
Hammond village	320.2	0.74	0.76	0.02
Mansfield village	829.4	0.53	0.52	-0.01
Monticello city	885.6	1.93	2.92	0.99
TOTAL		5.79	6.78	1.0

Negative growth is excluded from the sum of "Dif Sq. Mi. 00-30" column.

1.0 square mile = 640 acres

The projected demand for new residential development by 2030 in the incorporated area of Piatt County is 640 acres.

Table A1-9: Population Translated to Demand for Unincorporated Residential Land Use

Townships	Pop 2000	Pop 2030	Pop Change 2000-2030	% Pop Change 2000-2030	Housing Units 2000	Avg Pop per Housing Unit	Housing Units 2030	Housing Units Dif 00-30
Bement township	1,979	2,055	76	3.8%	803	2.5	834	31
Blue Ridge township	1,414	1,549	135	9.5%	605	2.3	663	58
Cerro Gordo township	2,199	2,140	-59	-2.7%	897	2.5	873	-24
Goose Creek township	852	908	56	6.6%	350	2.4	373	23
Monticello township	5,604	6,192	588	10.5%	2,394	2.3	2,645	251
Sangamon township	2,041	2,536	495	24.2%	762	2.7	947	185
Unity township	1,560	1,633	73	4.7%	689	2.3	721	32
Willow Branch township	720	830	110	15.2%	298	2.4	343	45
TOTAL	16,369	17,842	1,473	9.0%	6,798		7,399	601

Townships	Housing Density (per sq mile) 2000	Sq Mi 2000	Non-Municipal Sq Mi 2000	Non-Municipal Housing Units 2000	Non-Municipal Housing Units 2030	Dif # Housing Units 00-30	Non-municipal Housing Density (per sq mile) 2000	New Non-Municipal Sq Mi 2030
Bement township	16.6	48.4	47.6	80	77	-3	1.7	-0.52
Blue Ridge township	9.5	63.7	63.2	181	235	54	2.9	0.05
Cerro Gordo township	14.8	60.6	59.9	314	311	-3	5.2	-1.50
Goose Creek township	6.2	56.5	56.1	144	172	28	2.6	0.09
Monticello township	49.9	48.0	46.6	762	786	24	16.4	0.69
Sangamon township	16.1	47.3	46.8	168	224	56	3.6	0.06
Unity township	14.3	48.2	47.1	161	170	9	3.4	0.37
Willow Branch township	4.4	67.7	67.3	185	242	57	2.7	0.05
TOTAL	16	440.33	434.54	1,995	2,216	221		1.3

Negative growth is excluded from the sum of "Dif Sq. Mi. 00-30".
 1.3 square miles = 832 acres
 The projected demand for new residential development for unincorporated Platt County is 832 acres.

Employment Projections

In order to determine the estimated acreage of new employment center development for horizon year 2030, different employment sectors and their number of employees were analyzed. The number of employees by sector was related to generalized land uses' acreages for Piatt County in base year 2005. This ratio of acres for a specified employment sector to the number of employees in that employment sector was then utilized in calculating the number of acres in these employment sectors for horizon year 2030. Three generalized land uses were used in the calculations: industrial, retail/office, and institutional. For the purposes of these projections, the assumption was made that any new agriculture related employment would require no new acreage other than existing agricultural land. These projections also assume that the same ratio of employees to acres for each sector will be maintained between 2005 and 2030.

The following inputs are required for determining the projected number of new acres needed for employment in 2030:

- Employment estimates by NAICS sector for 2005
- Employment projections for 2030
- Existing land use acreages

NAICS employment sectors include farm employment and non-farm employment. Non-farm employment is divided into private sector employment and government employment. Private sector employment is divided into nine general subsectors: Agricultural Services; Mining; Construction; Manufacturing; Transport; Communications and Public Utilities; Wholesale Trade; Retail Trade; Finance, Insurance & Real Estate; and Services. For this analysis, these employment sectors needed to generally fit into the three land uses listed above, as shown in the following table:

Table A1-10: Generalized Land Uses

Land Use:	Industrial	Retail/Office	Institutional
Related Sectors:	Manufacturing	Retail Trade, Finance, Insurance & Real Estate, Services	Government (Federal, state and local)

Other sectors in Piatt County were not calculated as part of the analysis because their anticipated use of land was minimal given the number of employees or type of employment sector. Sectors shown in table A1-10 comprise 82% of non-farm employees. Agricultural services; mining; construction; transport; communications and public utilities; and wholesale trade comprise the other 18% of employees in 2005. Agricultural services and mining (4% of employees) were assumed to not require any new land, so they were excluded from the analysis. The other four sectors that were not included were deemed insignificant in terms of the amount of acreage they would comprise and the difficulty in assigning them to a specific land use.

Projected Employment Land Use Demand

Table A1-11: Employment Projections

NAICS Description	2005	2010	2015	2020	2025	2030	Change 2005-2030	% Change 2005-2030
Total Employment	6,111	6,348	6,578	6,795	7,004	7,202	1,091	18%
Farm Employment	551	540	529	518	507	495	-56	-10%
Non-farm employment	5,560	5,808	6,049	6,277	6,497	6,707	1,147	21%
Private Employment	4,590	4,785	4,974	5,149	5,316	5,473	883	19%
Agricultural Services, Other	129	154	178	203	227	252	123	95%
Mining	32	36	40	44	48	52	20	63%
Construction	306	314	322	328	335	341	35	11%
Manufacturing	404	409	413	415	417	418	14	3%
Transport, Comm & Public Utilities	197	200	203	206	209	212	15	8%
Wholesale Trade	325	327	329	330	330	330	5	2%
Retail Trade	1,078	1,115	1,152	1,185	1,216	1,243	165	15%
Finance, Insurance & Real Estate	581	598	615	630	644	658	77	13%
Services	1,538	1,632	1,722	1,808	1,890	1,967	429	28%
Government Employment	970	1,023	1,075	1,128	1,181	1,234	264	27%
Federal Civilian	51	49	46	44	42	40	-11	-22%
Federal Military	31	31	32	32	32	32	1	3%
State and Local	888	943	997	1,052	1,107	1,162	274	31%

Source: Woods & Poole Economics, Inc. Washington, D.C. Copyright 2007. Woods & Poole does not guarantee the accuracy of this data. The use of this data and the conclusion drawn from it are solely the responsibility of CCRPC.

The projections suggest that there will be a total of 629 new acres of employment centers in 2030.

	2005 acreage	2005 ratio acres:emp	2030 ratio extrapolated	Difference in acres
Industrial	347	.86	359	12
Retail / Office	664	0.21	803	139
Institutions	1758	1.81	2237	478