Revised

City of Harrisburg
Urbanization Study

Prepared for

City of Harrisburg

by

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Final Revised Report

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Executive Summary

The *Harrisburg Urbanization Study* is intended to provide technical analysis supporting the update of the Harrisburg Comprehensive Plan. This report provides data needed to update the Goal 9, 10, and 14 factual components of the Harrisburg Comprehensive Plan including the buildable lands inventory. It is also intended to provide a determination of whether the City has a 20-year supply of buildable land as required by Goal 14.

The purpose of the Urbanization study is to (1) evaluate growth forecasts, (2) inventory how much buildable land the City has, (3) identify housing needs, (4) identify economic development strategies, and (5) determine how much land the City will need to accommodate growth between 2013-2033.

HOW MUCH GROWTH IS HARRISBURG PLANNING FOR?

Harrisburg is growing. Table S-1 summarizes population and employment forecasts for Harrisburg. The population forecast projects that Harrisburg will grow at 2.8% annually for the 2013-2033 period. The population forecast is based historic population growth trends, demographic changes and trends, and recent development trends. The employment forecast projects employment growing at the same rates as population for both periods. The ratio of population to employment stays stable at 4.5 persons per job between 2013 and 2033 .

Table S-1. Population and employment forecasts, Harrisburg, 2013-2033

Year	Total Employment	Population
2013	906	4,070
2033	1,574	7,071
Change 2012-2032		
Number	668	3,001
Percent	74%	74%
AAGR	2.80%	2.80%

Source: ECONorthwest

HOW MUCH LAND DOES HARRISBURG CURRENTLY HAVE?

Harrisburg has 1,116 acres within the Urban Growth Boundary (UBG). Of this, about 940 acres are in tax lots; the remaining lands are in public right-of-ways—primarily streets. The City has about 413 acres of buildable commercial, industrial, and residential land within its UGB. ECO estimates that about 97 acres of Harrisburg's land is constrained by floodplains or unbuildable jurisdictional wetlands, leaving about 316 buildable acres within the UGB. Table S-2 summarizes the buildable lands inventory.

Table S-2. Net acres of vacant and partially vacant land by zoning, Harrisburg UGB, 2012

Area/Zone	Tax Lots	Total Acres	Developed Acres	Const. Acres	Unbuildable Jurisdictional Wetland Acres	Suitable Acres	Percent of Suitable Acres
City Limits							
R-1	62	122.0	9.5	0.0	25.2	87.2	27.6%
R-2	52	41.2	14.0	0.0	0.5	26.8	8.5%
M-1	8	22.6	2.0	2.5	0.0	18.1	5.7%
M-2	14	133.7	1.5	61.6	0.0	70.6	22.3%
GW	3	1.3	0.0	0.3	0.0	1.1	0.3%
C-1	18	3.4	0.0	0.0	0.0	3.4	1.1%
Subtotal	**157**	**324.2**	**27.0**	**64.4**	**25.7**	**207.1**	**65.5%**
Between City Limits and UGB							
UGA - EFU (Ind)	3	72.1	1.5	0.9	0.0	69.6	22.0%
UGA-RR-5	14	43.7	4.5	0.0	6.1	33.1	10.5%
R-1/UGA-RR-5	1	6.8	0.5	0.0	0.0	6.3	2.0%
Subtotal	**18**	**122.5**	**6.5**	**0.9**	**6.1**	**109.0**	**34.5%**
Total	**175**	**446.7**	**33.5**	**65.3**	**31.8**	**316.2**	**100.0%**

Source: City of Harrisburg GIS data; analysis by ECONorthwest

HOW MUCH HOUSING WILL THE CITY NEED?

Harrisburg will need to provide about 1,097 new dwelling units to accommodate growth between 2013 and 2033. The housing needs analysis found a deficit of units to accommodate both low- and high-income households, and a surplus of units in middle-income ranges. These housing needs will require a variety of housing types and densities.

HOW MUCH LAND WILL BE REQUIRED FOR HOUSING?

Harrisburg will need about 202 total acres to accommodate new housing growth between 2013 and 2033 (Table S-3). The needed residential mix is 70% single-family types and 30% multifamily types. The forecast results in average residential densities of 5.4 dwelling units per gross acre in 2033.

Table S-3. Allocation of new dwelling units and land to residential plan designations, Harrisburg, 2013-2033

	Plan Designation						Total	
	Low Density Residential		Medium Density Residential		High Density Residential			
Housing Type	**DU**	**Gross Ac**	**DU**	**Gross Ac**	**DU**	**Gross Ac**	**DU**	**Gross Ac**
Single-family detached	548	123	55	10	0	0	603	134
Manufactured	89	19	65	14	11	1	165	34
Condo/Townhomes	33	5	99	15	0	0	132	19
Multifamily	0	0	66	6	131	9	197	15
Total	**670**	**148**	**285**	**45**	**142**	**10**	**1,097**	**202**
Net density (du per acre)		**5.8**		**8.2**		**18.5**		**7.0**
Gross density (du per acre)		**4.5**		**6.4**		**14.4**		**5.4**
Percent of Acres and Units								
Single-family detached	50%	61%	5%	5%	0%	0%	55%	66%
Manufactured	8%	10%	6%	7%	1%	1%	15%	17%
Condo/Townhomes	3%	2%	9%	7%	0%	0%	12%	10%
Multifamily	0%	0%	6%	3%	12%	4%	18%	7%
Total	**61%**	**73%**	**26%**	**22%**	**13%**	**5%**	**100%**	**100%**

Source: ECONorthwest

HOW MUCH LAND WILL BE REQUIRED FOR EMPLOYMENT AND WHAT TYPES OF SITES ARE NEEDED?

Employment forecasts indicate that Harrisburg will add 668 jobs between 2013 and 2033. Harrisburg will need at least 44 gross acres for employment for the 2013-2033 period .

Table S-4. Estimated demand for employment land in the Harrisburg UGB by land use type, 2013-2033

Land Use Type	Land Need (Gross Acres)
Retail and Services	14
Industrial	26
Government	5
Total	**44**

Source: ECONorthwest

WILL HARRISBURG NEED ADDITIONAL LAND FOR THE 20-YEAR PLANNING PERIOD COMPARED TO THE CURRENT SUPPLY?

Yes. The land needs analysis indicates the City will need an additional 53 acres for housing and associated public facilities in the 2013-2033 period, as well as 21 acres for city parks.[1] The City also needs about 18 acres for commercial (retail and services) employment during the 2013-2033 period. Harrisburg has a 134 acre surplus of industrial land for the 2013-2033 period.

Table S-5. Comparison of land supply and demand, Harrisburg UGB, 2013-2033

Land use type	Land Demand	Supply	Surplus (deficit)
Residential	**207**	**154**	**(53)**
LDR	152	127	(26)
Housing	148		
Public and Semi-Public	5		
MDR	45	27	(18)
HDR	10	0	(10)
Parks - Public	**21**	**0**	**(21)**
Commercial	**21**	**3**	**(18)**
Employment	14		
Public and Semi-Public	7		
Industrial	**26**	**159**	**134**
Total	**254**	**316**	

Source: ECONorthwest
Notes: Vacant buildable land in the UGA but outside the city limits was allocated to the appropriate land use type. EFU land was allocated to Industrial land because 50 of the 60 acres of EFU is in one parcel that the City plans to use for industrial development.
Note: Table S-5 incorporates land needed for public uses into the plan designations shown in Table S-4. For example, Harrisburg has demand for 148 acres of LDR land for housing and 5 acres of land for public and semi-public uses, for a total of a 152 acre demand.

Table S-5 does not tell the complete story about employment site needs in Harrisburg.

- **Land for commercial uses.** Table S-5 identifies a deficit of 18 acres of commercial land. Based on the site needs analysis in Chapter 4, Harrisburg's commercial land deficit can be addressed in several ways: (1) with one large site (e.g., a seven to 10 acre site) and multiple smaller sites (e.g., sites two acres or less) or (2) with two mid-sized sites(e.g., between three and six acres) and multiple smaller sites (e.g., sites two acres or less).

  ECO will work with city staff and officials to identify opportunities to accommodate Harrisburg's commercial sites within the existing UGB, as part of revisions to the City's Comprehensive Plan. This decision will be addressed in the UGB alternatives analysis.

[1] Note that Table S-5 shows land needed for residential uses (Table S-3) and commercial uses (Table S-4) that includes land needed for public and semi-public uses.

- **Land for industrial uses.** Table S-5 identifies a surplus of 134 industrial acres over the 20-year planning period. The land inventory in Chapter 3 shows that Harrisburg has two industrial sites over 20 acres in size (for a total of 50 acres) and one 67 acre site in the urban growth area (currently zoned UGB-EFU). Harrisburg wants to preserve key industrial sites, which includes but is not limited to the three large sites, for future industrial uses.

  Revisions to the City's Comprehensive Plan will include one or more policies about preserving prime industrial land for industrial uses. As part of the update to the Comprehensive Plan, the City may consider redesignating non-prime industrial land with appropriate characteristics (e.g., location, site size, or transportation access) to meet land deficiencies, such as the City's commercial land deficit.

Chapter 1 Introduction

The revised Harrisburg Urbanization Study is intended to provide technical analysis supporting the 2012 update of the Harrisburg Comprehensive Plan. This study is an update of the urbanization study that ECONorthwest completed in 2007. This report provides data needed to update the Goal 9, 10, and 14 factual components of the Harrisburg Comprehensive Plan including the buildable lands inventory. It is also intended to provide a determination of whether the City has a 20-year supply of buildable land as required by Goal 14.

BACKGROUND

Harrisburg grew at a faster annual rate than any other city in Linn County between 1990 and 2011. Much of the available residential land within the UGB is developed or is in the process of being developed, especially during the 1997 to 2006 period. In addition, Harrisburg has comparatively little undeveloped commercial and industrial land. The City recently completed a local wetlands inventory, which identifies land constrained by regulated wetlands. As a result of the recent growth and development, the City of Harrisburg is considering expansion of the UGB to provide land for expected growth over the next 20-years.

This study, called an *Urbanization* study, must comply with Oregon statewide planning Goals 9, 10, and 14 which require communities to inventory buildable lands and to maintain a 20-year supply of land for residential, commercial, and industrial purposes.. Currently, small cities are not required to engage in periodic review, which is typically a time that a 20-year supply is addressed. Harrisburg has chosen to update these plan components at this time because the city wants to be proactive in their planning due to the rapid growth experienced in the past decade. The determination of need for additional residential, employment, and public land within the UGB will be one of the key outcomes of this study. Such a determination must be based on assumptions about population and employment growth, household size, density, and other factors.

PURPOSE AND METHODS

The purpose of this report is to provide the technical analysis required to determine if the City has a 20-year supply of buildable lands. It includes data that the City can use to update the Goal 9, 10, and 14 factual components of the Harrisburg Comprehensive Plan including the buildable lands inventory. Specifically, this report presents:

- A forecast of population and employment;
- A housing needs analysis consistent with Goal 10;
- An economic opportunities analysis consistent with Goal 9 and OAR 660-009; and

- A buildable lands inventory consistent with Goal 9 and 10 requirements.

This report also compares demand for land with the supply of land. This analysis is required by statewide Planning Goals 9, 10, and 14 to determine if the City has sufficient buildable land to meet 20 years of demand (UGB).

In general, an urbanization analysis contains a *supply* analysis (buildable and redevelopable land by type) and a *demand* analysis (population and employment growth leading to demand for more built space: residential and non-residential development). The geographic scope of the urbanization analysis is all land inside the Harrisburg Urban Growth Boundary.

BUILDABLE LANDS

The general structure of the buildable land (supply) analysis is based on the DLCD HB 2709 workbook "*Planning for Residential Growth – A Workbook for Oregon's Urban Areas*," which specifically addresses residential lands. The steps and sub-steps in the supply inventory are:

1. Calculate the gross vacant acres by plan designation, including fully vacant and partially vacant parcels.
2. Calculate gross buildable vacant acres by plan designation by subtracting unbuildable acres from total acres.
3. Calculate net buildable acres by plan designation, subtracting land for future public facilities from gross buildable vacant acres.
4. Calculate total net buildable acres by plan designation by adding redevelopable acres to net buildable acres.

The supply analysis builds from a parcel-level database to estimates of buildable land by plan designation and zoning.[2] For other generalized land use types, each parcel was classified into one of the following categories:

- Vacant land
- Partially Vacant land
- Undevelopable land
- Developed land
- Potentially Redevelopable land

The inventory identifies areas in floodplains, wetlands identified in the Harrisburg Local Wetlands Inventory (LWI), and land identified for future public facilities as constrained or committed lands. These areas were deducted or partially deducted from lands that were identified as vacant or partially vacant. Definitions of these characteristics and the results of the buildable residential lands inventory are presented in Chapter 3.

[2] The parcel-level database was based on information from the City of Harrisburg.

HOUSING

Demand for land is characterized through analysis of national, regional, and local demographic and economic data. For residential uses, population growth and household characteristics drive demand. For the residential sector, for example, information about the characteristics of households is used to identify types of housing that will be sought by households.

The method used in this analysis is generally consistent with the method described in the DLCD document *Planning for Residential Needs.* The Workbook describes six steps in conducting a residential needs assessment:

1. Project the number of new housing units needed in the next 20 years.

2. Identify relevant national, state, and local demographic trends that will affect the 20-year projection of structure type mix.

3. Describe the demographic characteristics of the population, and household trends that relate to demand for different types of housing.

4. Determine the types of housing that are likely to be affordable to the projected households.

5. Estimate the number of additional needed units by structure type.

6. Determine the needed density ranges for each plan designation and the average needed net density for all structure types.

Chapter 4 presents the housing needs analysis which provides estimates of needed housing by type, density, and price. It also provides estimates of land that will be required to accommodate future population growth.

ECONOMY

Oregon Planning Goal 9 and its Administrative Rule require jurisdictions to provide an adequate supply of buildable lands for a variety of commercial and industrial activities. In addition, Goal 9 requires plans to be based on an analysis of the comparative advantages of a planning region. Comparative advantage is defined in terms of the relative availability of factors that affect the costs of doing business in the planning region; Goal 9 specifies many geographic, economic, and institutional factors that an analysis of comparative advantage should consider.

The analysis of comparative advantage in this report includes the locational factors specified by Goal 9 and OAR 660-009. It assesses qualitatively the availability of these factors in Harrisburg relative to Linn County, the Willamette Valley, and to Oregon.

ORGANIZATION OF THIS REPORT

The remainder of this report is organized as follows:

- **Chapter 2, Population and Employment Forecasts**, presents population and employment forecasts for the Harrisburg urban growth boundary.
- **Chapter 3, Buildable Land Supply**, describes the supply of residential, commercial, industrial, and public land available to meet forecast population and employment growth.
- **Chapter 4, Housing Needs Analysis**, presents a housing needs analysis consistent with Goal 10.
- **Chapter 5, Economic Opportunities Analysis**, describes national and state economic factors that may affect Harrisburg, an overview of Harrisburg's economy, and an evaluation of the comparative economic advantages of Harrisburg.
- **Chapter 6, Comparison of Supply and Need**, compares buildable land supply with estimated housing need. It determines how much land will be needed to accommodate growth over a 20-year period.
- **Appendix A, Summary of National Housing Trends**, summarizes housing trends that may affect Harrisburg's housing market over the planning period.

Chapter 2 Population and Employment Forecasts

A primary goal of the analysis presented in this report is a review of the City of Harrisburg's Urban Growth Boundary (UGB). Foundational components of this review are a population forecast and an employment forecast. The forecasts provide the basis for estimating land needed for housing, employment, and related uses.

A prerequisite to expanding a UGB is having a coordinated population forecast as required by ORS 195.036. Population forecasts must be coordinated by a designated "coordinating" agency, in this case Linn County. In 1999, Linn County adopted a coordinated population forecast to 2020, which included Harrisburg. In 2007, Linn County adopted a population forecast for Harrisburg for the 2006 to 2027 period.[3]

Population and employment forecasts serve several purposes. First they allow cities to estimate the amount of infrastructure capacity to provide. This ensures that cities have sufficient capacity to accommodate projected growth. Next, it allows cities to develop estimates of how much housing, park, school, institutional, commercial, and industrial space will be needed. These estimates in turn allow for an estimate of how much land will be needed to accommodate that growth. Finally, the population forecasts (when expressed as acres of land needed for growth) can be compared with the buildable land inventory to determine whether sufficient land is available to accommodate 20 years of growth.

The remainder of this chapter is organized as follows:

- The **Population Forecast** section presents a population forecast for Harrisburg. This section presents historic population changes for Linn County and Harrisburg. It presents a population forecast for Harrisburg from 2007 to 2033, with a 20-year forecast for the 2013-2033 period. This section identifies the methods and assumptions used to develop these forecasts.

- The **Employment Forecast** section presents a forecast of employment growth for Harrisburg and identifies the methods and assumptions used to develop the forecast.

- The **Summary** section compares population and employment growth for Harrisburg. This section concludes with recommended population and

[3] In Order Number 2007-83, Planning File BC07-004.

employment forecasts that will be used in the remainder of the Harrisburg Urbanization Study.

POPULATION FORECAST

Between 1990 and 2011, Harrisburg grew at an average annual rate of 2.97% per year, faster than Oregon and more than twice as fast as Linn County. Over that period, Harrisburg added 1,628 residents. It is a priority for the city to prepare adequately for continued population growth. This section provides an analysis of historic population trends, and the coordinated population forecast for Harrisburg.

Table 2-1 presents historic population change for Harrisburg and Linn County between 1990 and 2011. Over the 21-year period, Linn County's population grew by 26,113 people or 29%. Over the same period, Harrisburg's population grew by 1,646 people or 85%. Harrisburg's share of the County's population increased from 2.1% in 1990 to 3.1% in 2011. Estimates of annual population change varied in Harrisburg from a gain of 6 residents (in 1991) to a gain of 265 residents (in 2005).

Table 2-1. Historic population change, Linn County and Harrisburg, 1990-2011

	Linn Co.	Harrisburg			
Year	Pop.	Pop.	Annual Change	Percent Change	% of County
1990	91,227	1,939	24	1.3%	2.1%
1991	93,070	1,945	6	0.3%	2.1%
1992	93,990	1,965	20	1.0%	2.1%
1993	95,300	1,990	25	1.3%	2.1%
1994	96,650	2,030	40	2.0%	2.1%
1995	98,510	2,130	100	4.9%	2.2%
1996	100,180	2,205	75	3.5%	2.2%
1997	101,560	2,310	105	4.8%	2.3%
1998	102,140	2,535	225	9.7%	2.5%
1999	102,710	2,715	180	7.1%	2.6%
2000	103,069	2,795	80	2.9%	2.7%
2001	104,397	2,850	55	2.0%	2.7%
2002	105,441	2,880	30	1.1%	2.7%
2003	106,885	2,930	50	1.7%	2.7%
2004	108,879	3,010	80	2.7%	2.8%
2005	110,223	3,275	265	8.8%	3.0%
2006	111,867	3,355	80	2.4%	3.0%
2007	113,481	3,400	45	1.3%	3.0%
2008	114,890	3,435	35	1.0%	3.0%
2009	116,114	3,455	20	0.6%	3.0%
2010	116,672	3,567	112	3.2%	3.1%
2011	117,340	3,585	18	0.5%	3.1%

Source: Population Research Center, PSU and calculations by ECONorthwest

Table 2-2 shows a comparison of Harrisburg's population growth relative to Linn County's, as well as growth rates for Harrisburg for several time periods.

These historical growth rates provide context for developing a range of population projections. ECO calculated the rates using the compounding average annual growth rate method. The data underscore several key points:

- The start and end dates have a big impact on the growth rate. Harrisburg grew fastest during the 1990's and has continued at a slightly slower rate since 2000. The rate of population growth was higher in Harrisburg than in Linn County for each time period shown in Table 2-2.
- The average annual growth rate for Linn County was 1.2% over the 21-year period.

Table 2-2. Compound growth rates by type period, Linn County and Harrisburg (city limits), 1990-2011

Year	Linn Co.	Harrisburg	% of County
1990	91,227	1,939	2.1%
1995	98,510	2,130	2.2%
2000	103,069	2,795	2.7%
2005	110,223	3,275	3.0%
2011	117,340	3,585	3.1%
Harrisburg population change			
Period	**AAGR**	**Pop. Change**	**% Change**
1990 to 2011	**2.97%**	**1,646**	**85%**
1990 to 2000	3.72%	856	44%
2000 to 2011	2.29%	790	28%

Source: Population Research Center, PSU and calculations by ECONorthwest
AAGR = Average Annual Growth Rate

Chapter 4 presents a summary of demographic trends in Harrisburg that are likely to affect the rate of future population growth:

- Harrisburg had a larger share of residents under 40 years old, compared to Linn County or the State average. The age structure of Harrisburg's residents suggests that the City is attracting younger residents, including families with children.
- Harrisburg's Hispanic accounted for 8.0% of the City's population in 2010, compared to the County average of 7.8% of population and the State average of 11.7%. Harrisburg's Hispanic population is growing faster than the overall population, which conforms to statewide trends. National demographic trends suggest this trend will continue in Oregon and will likely continue in Harrisburg as well.

In 2007, Linn County adopted a coordinated population forecast that projected population growth in Harrisburg from 2006 to 2027. Table 2-3 shows that Linn County's population forecast shows the City growing by 2,637 people at an average annual growth rate of 2.80%.

Table 2-3. Coordinated adopted population forecast, Harrisburg UGB, 2006-2027

Year	Harrisburg
2006	3,355
2027	5,992
Change 2006 to 2027	
People	2,637
Percent Change	79%
AAGR	2.80%

Source: Linn County Order Number 2007-83, Planning File BC07-004

Linn County's adopted population forecast for Harrisburg only projects population until 2027. The City will use the 20-year coordinated population forecast to determine how much employment and residential land is needed within the UGB to accommodate the projected population growth over 20-years.

Table 2-4 presents a forecast population forecast for Harrisburg for the 2006 to 2033 period. The forecast assumes:

- Harrisburg will grow at the adopted rate of 2.80% over the 2006 to 2027 period, with a population of 5,992 people in 2027.

- Harrisburg will continue to grow at 2.80% over the 2027 to 2033 period, with a population of 7,071 people in 2033. OAR 660-024-0030(4)(a) allows the City to extend the adopted population forecast to a 20-year period using the same growth trend assumed in the County's current adopted forecast.[4]

[4] OAR 660-024-0030(4)(a) reads: If a coordinated population forecast was adopted by a county within the previous 10 years but does not provide a 20-year forecast for an urban area at the time a city initiates an evaluation or amendment of the UGB, a city and county may adopt an updated forecast for the urban area consistent with this section. The updated forecast is deemed to comply with applicable goals and laws regarding population forecasts for purposes of the current UGB evaluation or amendment provided the forecast:

(A) Is adopted by the city and county in accordance with the notice, procedures and requirements described in section (1) of this rule; and

(B) Extends the current urban area forecast to a 20-year period commencing on the date determined under OAR 660-024-0040(2) by using the same growth trend for the urban area assumed in the county's current adopted forecast.

Table 2-4. Harrisburg population forecast, UGB 2006-2033

Year	Population	Annual Change	Percent Change
2006	3,355	--	--
2007	3,449	94	2.8%
2008	3,546	97	2.8%
2009	3,645	99	2.8%
2010	3,747	102	2.8%
2011	3,852	105	2.8%
2012	3,960	108	2.8%
2013	4,070	111	2.8%
2014	4,184	114	2.8%
2015	4,302	117	2.8%
2016	4,422	120	2.8%
2017	4,546	124	2.8%
2018	4,673	127	2.8%
2019	4,804	131	2.8%
2020	4,939	135	2.8%
2021	5,077	138	2.8%
2022	5,219	142	2.8%
2023	5,365	146	2.8%
2024	5,515	150	2.8%
2025	5,670	154	2.8%
2026	5,828	159	2.8%
2027	5,992	163	2.8%
2028	6,159	168	2.8%
2029	6,332	172	2.8%
2030	6,509	177	2.8%
2031	6,691	182	2.8%
2032	6,879	187	2.8%
2033	7,071	193	2.8%

Source: 2006 base population from Population Research Center; forecast by ECONorthwest

In summary, Harrisburg has experienced substantial population growth since 1990. A summary of the findings about Harrisburg's population growth follows:

- Harrisburg' population has grown from 1,939 to 3,558 residents between 1990 and 2011, an increase of 1,646 residents or more than 80% of the City's population at an average annual rate of 2.97%.
- Between 1990 and 2010 Harrisburg grew more than twice as fast as Oregon and two and a half times faster than Linn County.
- The assumed growth rate of 2.8% annually for the 2012-2033 period is based on extrapolation of Harrisburg's adopted forecast for the 2006-2027 period.

EMPLOYMENT FORECAST

To provide for an adequate supply of commercial and industrial sites, Harrisburg requires an estimate of the amount (e.g., the number of acres) of commercial and industrial land that will be needed over the planning period. Demand for commercial and industrial land will be driven by the expansion and relocation of existing businesses and new businesses locating in Harrisburg. The level of this business expansion activity can be measured by employment growth in Harrisburg. This section presents a projection of future employment levels in Harrisburg for the purpose of estimating demand for commercial and industrial land.

The projection of employment in this chapter has three steps:

1. **Establish base employment for the projection.** The forecast starts with the estimate of covered employment in Harrisburg's UGB. Covered employment does not include all workers, so covered employment was adjusted to reflect total employment in Harrisburg. Employment by sector will be summarized into employment by land use type for the purposes of estimating land demand by type.
2. **Project total employment.** The projection of total employment will consider a variety of factors, including historical growth rates and projections for population and employment in Linn County.
3. **Allocate future employment to land use types.** This allocation will use assumptions based on expected trends in employment growth by land use type and employment goals of the city.

The remainder of this section is organized by headings that correspond to these three major steps for the projection.

EMPLOYMENT BASE FOR PROJECTION

The first step in developing an employment forecast is to develop a base year employment figure. Table 2-6 shows an estimate of total employment in the Harrisburg UGB in 2010. The total employment figure is based on covered employment in the Harrisburg UGB from confidential QCEW (Quarterly Census of Employment and Wages) data provided by the Oregon Employment Department. Covered employment, however, does not include all workers in an economy. Most notably, covered employment does not include sole proprietors. Analysis of data in Table 2-5 shows that covered employment reported by the Oregon Employment Department for Linn County is only about 82% of total employment reported by the U.S. Department of Commerce.

Table 2-5. Comparison of covered to total employment, Linn County, 2010

Land Use Type / Sector	**Covered**	**Total**	**Covered % of Total**
Industrial	**13,792**	**15,501**	**89%**
Agriculture, Forestry, Fishing, Hunting	1,596	(D)	82%
Mining	10	(D)	82%
Utilities	171	179	96%
Construction	1,684	2,504	67%
Manufacturing	6,550	7,048	93%
Wholesale Trade	1,436	1,635	88%
Transportation & Warehousing	2,345	2,863	82%
Retail and Commercial	**18,278**	**25,717**	**71%**
Retail	4,408	5,591	79%
Information	386	466	83%
Finance & Insurance	777	1,263	62%
Real Estate Rental & Leasing	393	1,481	27%
Professional, Scientific & Technical Services	821	1,432	57%
Management of Companies	246	331	74%
Admin. Support & Cleaning Services	1,981	2,508	79%
Education	395	585	68%
Health & Social Assistance	4,339	5,760	75%
Arts, Entertainment & Recreation	332	644	52%
Accomodations & Food Services	2,725	2,919	93%
Other Services (except Public Admin.)	1,475	2,737	54%
Public	**7,504**	**7,281**	**100%**
Government	7,504	7,281	100%
Total Non-Farm Employment (BEA total)	**39,574**	**48,499**	**82%**

Source: 2010 covered employment from confidential Quarterly Census of Employment provided by the Oregon Employment Department. Employment summarized by land use type by ECONorthwest. Covered employment as a percent of total employment calculated by ECONorthwest using data for Linn County employment from the U.S. Department of Commerce, Bureau of Economic Analysis (total) and the Oregon Employment Department (covered).
Note: (D) indicates data that is not available for confidentiality reasons.
Cells shaded in green indicate assumptions about the covered percent of total. Where no estimate of employment is available for confidentiality reasons (Agriculture and Mining), ECO assumed the average ratio of covered to total employment (82%). For Government employment, the BEA estimate of total employment was smaller than the OED estimate of covered employment. ECO assumed that 100% of Government employment is covered. In other Oregon counties, nearly all of Government employment is covered.

Table 2-6 shows a summary of covered employment (see Table 5-5 for greater detail) and an estimate of total employment in Harrisburg.

Table 2-6 uses the County ratio of covered employment and total employment (Table 2-5) to convert covered employment to total employment in Harrisburg by sector. Table 2-6 shows Harrisburg had an estimated 688 covered employees and 834 total employees within its UGB in 2010. About 90% of all businesses in Harrisburg have fewer than 25 employees.

Table 2-6. Estimated total employment in the Harrisburg UGB by land use type, 2010

	Covered Employment		Total Employment	
	Amount	Percent	Amount	Percent
Retail and Services	179	26%	284	34%
Industrial	298	43%	339	41%
Government	211	31%	211	25%
Total Employment	**688**	**100%**	**834**	**100%**

Source: 2010 covered employment from confidential Quarterly Census of Employment provided by the Oregon Employment Department. Employment summarized by land use type by ECONorthwest. Covered employment as a percent of total employment calculated by ECONorthwest using data for Linn County employment from the U.S. Department of Commerce, Bureau of Economic Analysis (total) and the Oregon Employment Department (covered).

OAR 660-024-0040 (9) (a) (B) allows the City to determine employment land needs based on "The population growth rate for the urban area in the adopted 20-year coordinated population forecast…" Based on this safe harbor and the current coordinated population forecast rate of 2.8%, employment in Harrisburg can be assumed to grow at 2.8% annually from 2012 to 2033.

- **Employment growth.** Table 2-7 shows the result of applying this growth rate to the total employment base in Harrisburg estimated in Table 2-6. By 2033, Harrisburg will have 1,574 employees.
- **Types of employment.** Table 2-7 assumes that Harrisburg's distribution by land use type is the same in 2013 as in 2010. By 2033, Table 2-7 assumes that the share of employment in industrial sectors will increase to 45%, retail and services will increase to 35%, and government will decrease to 20%. This assumption is based on Harrisburg's historical mix of employment (with about 43% of employment in industrial sectors in prior to the 2007 recession) and the assumption that employment in retail and services will grow with population growth.

Table 2-7. Employment growth by land use type in the Harrisburg UGB area, 2013–2033

Land Use Type	2013 Total	% of Total	2033 Total	% of Total	2013-2033 Growth
Retail and Services	309	34%	551	35%	242
Industrial	368	41%	708	45%	340
Government	229	25%	315	20%	86
Total Employment	906	100%	1,574	100%	668

Source: ECONorthwest.
Note: shaded cells indicate assumptions by ECONorthwest.

SUMMARY

Harrisburg is growing. Table 2-8 summarizes population and employment forecasts for Harrisburg. The population forecast projects that Harrisburg will grow at 2.8% annually for the 2013-2033 period. The population forecast is based historic population growth trends, demographic changes and trends, and recent development trends. The employment forecast projects employment growing at the same rate as population. The ratio of population to employment is forecast to remain at 4.5 persons per job throughout the planning period.

Table 2-8. Population and employment forecasts, Harrisburg, 2013-2033

Year	Total Employment	Population
2013	906	4,070
2033	1,574	7,071
Change 2012-2032		
Number	668	3,001
Percent	74%	74%
AAGR	2.80%	2.80%

Source: ECONorthwest

Chapter 3 Buildable Lands Inventory

The buildable lands inventory is intended to identify lands that are available and suitable for development within the Harrisburg UGB. The inventory is sometimes characterized as *supply* of land to accommodate growth. Population and employment growth drive *demand* for land. The amount of land needed depends on the density of development.

This chapter presents the 2012 buildable lands inventory for the City of Harrisburg. The results are based on analysis of Geographic Information System data provided by Linn County GIS. The inventory was verified using aerial orthophotographs and City staff review.

METHODS, DEFINITIONS, AND ASSUMPTIONS

The first step in the inventory was to develop working definitions and assumptions. The next step was to classify land using a rule-based methodology. The rules to classify land are described below. The initial classifications were then verified through aerial photos and City staff review.

The buildable lands analysis used a tax lot database provided by the Linn County GIS Department. The tax lot database was current as of June 2012. The data were verified in September 2012 through local review and include recent development not reflected in the Assessor's data. The supply analysis builds from the tax lot-level database to estimates of buildable land by plan designation.

A key step in the buildable lands analysis was to classify each tax lot into a set of mutually exclusive categories. Consistent with the DLCD *Residential Lands Workbook*, all tax lots in the UGB are classified into one of the following categories:

- *Vacant land.* Tax lots that have no structures or have buildings with very little value. For the purpose of this inventory, residential lands with improvement values under $10,000 are considered vacant (not including lands that are identified as having mobile homes).

  For industrial and other employment lands, the OAR 600-009-0005(14) definitions are used: "Vacant Land" means a lot or parcel: (a) Equal to or larger than one half-acre not currently containing permanent buildings or improvements; or (b) Equal to or larger than five acres where less than one half-acre is occupied by permanent buildings or improvements.

- *Partially vacant land.* Partially vacant tax lots are those occupied by a use but which contain enough land to be further subdivided without need of rezoning. Consistent with OAR 660-024-0050(2), partially vacant residential tax lots must be at least 0.5 acre in area. The inventory used the half-acre threshold as a preliminary indicator for partially-vacant land, and

then reviewed improvement values, aerial photos, and building footprints to verify lands classified as partially-vacant. Partially vacant commercial and industrial tax lots were identified by analysis of GIS data, aerial photographs, building footprints, and fieldwork.

- *Undevelopable land.* Land that is under the minimum lot size for the underlying zoning district, land that has no access or potential access, land that is already committed to other uses by policy, or land that is more than 90% constrained.

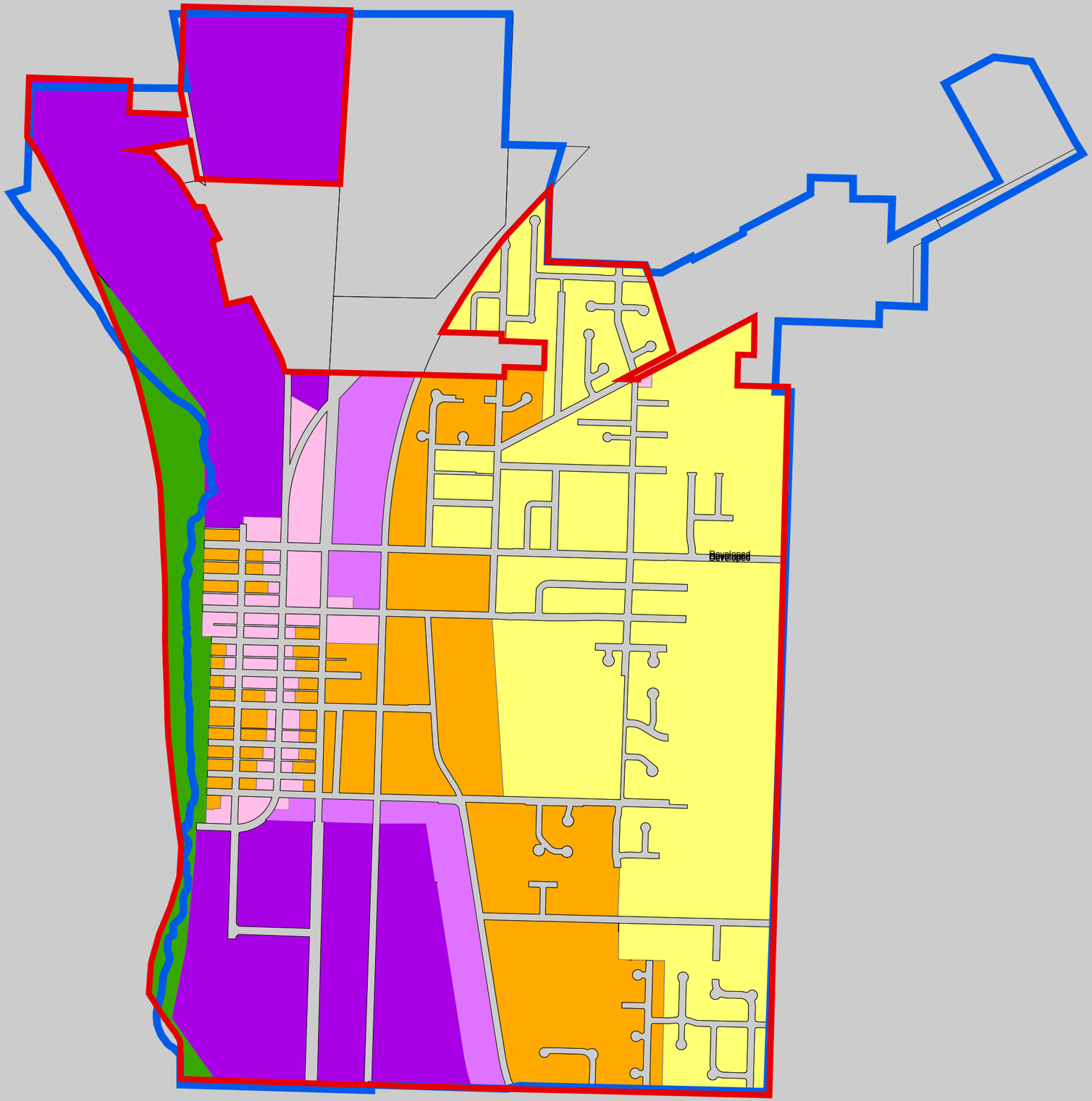
- *Developed land.* Land that is developed at densities consistent with zoning and improvements that make it unlikely to redevelop during the analysis period. Lands not classified as vacant, partially-vacant, or undevelopable are considered developed.

- *Potentially Redevelopable land.* Land on which development has already occurred but on which, due to present or expected market forces, there exists the potential that existing development will be converted to more intensive uses during the planning period. Redevelopable land is a subset of developed land and was identified using improvement to land value ratios and City input.

- *Public land.* Lands in public or semi-public ownership are considered unavailable for residential development. This includes lands in Federal, State, County, or City ownership as well as lands owned by churches and other semi-public organizations. Public lands were identified using property classifications (lands with a 9xx property classification are tax exempt and were classified as public).

The land classifications result in identification of lands that are vacant or partially vacant. The inventory includes all lands within the Harrisburg UGB. Public and semi-public lands are generally considered unavailable for development. Map 3-1 shows lands by zoning district within the Harrisburg UGB.

Map 3.1
Zoning, Harrisburg UGB
City of Harrisburg
Oregon



Legend

- Urban Growth Boundary
- City Limit

Zoning

City Zoning

- C-1
- GW
- M-1
- M-2
- R-1
- R-2

County Zoning

- Exclusive Farm Use
- Rural Industrial
- Rural Residential

N

0 2,500 5,000

Feet

Cartography/GIS: ECONorthwest, December 2012.

RESULTS

LAND BASE

Table 3-1 shows acres by within the Harrisburg UGB and city limits in 2012. According to the City GIS data, Harrisburg had about 1,116 acres within its UGB. Of the 1,116 acres, 940 acres (about 84%) were in tax lots. Acres not in tax lots were primarily in streets and waterways. Harrisburg has about 917 acres within its City Limits; of these about 757 acres (about 83% of total acres in the City Limit) were in tax lots. Additionally, the City has about 199 acres within the UGA (the area between the City Limit and UGB); of this about 183 acres are in tax lots.

Table 3-1. Acres in Harrisburg UGB and City Limit, 2012

Area	Tax Lots	Total Acres	Acres in Tax Lots	Percent in Tax Lots
City Limits	1,275	916.8	756.5	83%
UGA	49	198.9	183.4	92%
Total	**1,324**	**1,115.8**	**939.9**	**84%**

Source: City of Harrisburg GIS data; analysis by ECONorthwest
Note: Totals may not add exactly because of small rounding errors.

Table 3-2 summarizes acres by zoning for lands within the Harrisburg UGB. The results are summarized by areas within the (1) city limits, (2) the urban growth area (UGA) or urbanizable area (e.g., the area between the city limits and the UGB); and (3) the entire UGB.

The results show that about 53% of the land in the Harrisburg UGB is designated for residential use. About 36% is designated for industrial use, and 3% for commercial/employment use. About 1% is designated "greenway."

Table 3-2. Acres by zoning district, Harrisburg UGB, 2012

Zone	Zone Name	Tax Lots	Acres in Tax Lots	Percent of Acres
City (in city limits)				
C-1	Commercial	110	29.6	3%
GW	Greenway	25	4.9	1%
M-1	Limited Industrial	24	40.1	4%
M-2	General Industrial	33	244.8	26%
R-1	Single-Famly Residential	666	276.9	29%
R-2	Mulitfamily Residential	417	160.1	17%
Subtotal		**1,275**	**756.5**	**80%**
County (in UGB, outside city limits)				
UGA - EFU	Exclusive Farm Use	3	72.1	8%
UGA - HI	Heavy Industrial	1	24.9	3%
UGA - LI	Light Industrial	4	27.1	3%
UGA - RR5	Rural Residential 5	19	53.5	6%
UGA - UGM10	Urban Growth 10	22	5.8	1%
Subtotal		**49**	**183.4**	**20%**
Total		**1,324**	**939.9**	**100%**

Source: City of Harrisburg GIS data; analysis by ECONorthwest
Note: Totals may not add exactly because of small rounding errors.

Table 3-3 shows acres by classification and constraint status for the Harrisburg UGB in 2012. Analysis by constraint status (the table columns) shows that about 499 acres were classified as built or committed (e.g., unavailable for development), 125 were constrained in some manner or had reduced development capacity, and 316 were vacant and suitable for development.

Table 3-3. Acres by classification, Harrisburg UGB, 2012

Classification	Number of Tax Lots	Total Acres	Developed Acres	Constrained Acres	Reduced Capacity Acres	Suitable Acres
Inside City Limits						
Developed	1082	370.2	350.7	19.5	0.0	0.0
Partially Vacant	54	139.4	27.0	32.3	9.3	70.8
Public	36	62.1	57.8	4.2	0.0	0.0
Vacant	103	184.8	0.0	32.1	16.4	136.3
Subtotal	**1,275**	**756.5**	**435.5**	**88.1**	**25.7**	**207.1**
Between City Limits and UGB						
Developed	31	60.8	57.2	3.7	0.0	0.0
Partially Vacant	13	111.9	6.5	0.9	3.9	100.6
Vacant	5	10.6	0.0	0.0	2.2	8.5
Subtotal	**49**	**183.4**	**63.7**	**4.6**	**6.1**	**109.0**
Total	**1,324**	**939.9**	**499.2**	**92.7**	**31.8**	**316.2**

Source: City of Harrisburg GIS data; analysis by ECONorthwest
Note: Totals may not add exactly because of small rounding errors.

Map 3.2
Land Classification
City of Harrisburg
Oregon

Legend

- Urban Growth Boundary
- City Limit

Classification

- Developed
- Partially Vacant
- Public
- Vacant

N

0 2,500 5,000

Feet

Cartography/GIS: ECONorthwest, December 2012.

VACANT BUILDABLE LAND

The next step in the buildable land inventory is to net out portions of vacant and partially vacant tax lots that are unavailable/unsuitable for development. Areas unavailable for development fall into two categories: (1) developed areas of partially vacant tax lots, and (2) areas with physical constraints (in this instance areas within floodplains or wetlands).

The administrative rules (OAR 660-008 and OAR 660-009) that provide guidance on buildable lands inventories address residential and employment lands differently. OAR 660-008-0005 (Interpretation of Goal 10 housing) provides guidance on residential buildable land:

> (2) "Buildable Land" means residentially designated land within the urban growth boundary, including both vacant and developed land likely to be redeveloped, that is suitable, available and necessary for residential uses. Publicly owned land is generally not considered available for residential uses. Land is ***generally*** considered "suitable and available" unless it:
>
> (a) Is severely constrained by natural hazards as determined under Statewide Planning Goal 7;
>
> (b) Is subject to natural resource protection measures determined under Statewide Planning Goals 5, 6, 15, 16, 17 or 18;
>
> (c) Has slopes of 25 percent or greater;
>
> (d) Is within the 100-year flood plain; or
>
> (e) Cannot be provided with public facilities.

Harrisburg has areas within the 100-year floodplain and wetlands. The City has a local wetlands inventory that shows the approximate location of wetlands. None of the wetlands that affect vacant or partially vacant residential lands are consider locally significant.

Previous activity on sites with wetlands in Harrisburg suggests that the Oregon Department of State Lands will require mitigation of development impacts thereby reducing development capacity on wetlands areas. For example, Diamond Hill Estates was a subdivision that received approval in 2008. The applicant originally requested approval of 55 residential lots. After DSL commented on the project and arrived at an agreement with the applicant and the City, the development was limited to 33 residential lots. The total site area was 14.05 acres. There were 12.09 acres of non-locally significant wetlands. The applicant proposed to impact 6.13 acres of wetlands, preserve and enhance 5.96 acres of wetlands, create 0.24 acres of new on-site wetlands, and buy 2.99 acres of off-site mitigation credits at a 2:1 ratio.

Moreover, a 2006 housing study conducted by the City of Albany estimated that 65% of jurisdictional wetlands on a given site were avoided and 35% were impacted, with mitigation taking place on the development site or off-site.[5]

Based on the analysis above, the inventory identifies two types of residential land constraints:

(1) **Land considered unbuildable**. Lands within the 100-year floodplain and locally significant wetlands are considered unbuildable.

(2) **Land with reduced development potential**. Lands with wetlands that were not identified as locally significant are considered to have reduced development potential. Based on the Diamond Hill Estates development and Albany's analysis, the City of Harrisburg assumes that 35% of the areas within jurisdictional wetlands will be available for development. All of the wetlands within vacant or partially vacant residential lands are jurisdictional wetlands.

OAR 660-009-0005 uses a slightly different definition of constraints:

> (2) "Development Constraints" means factors that temporarily or permanently limit or prevent the use of land for economic development. Development constraints include, but are not limited to, wetlands, environmentally sensitive areas such as habitat, environmental contamination, slope, topography, cultural and archeological resources, infrastructure deficiencies, parcel fragmentation, or natural hazard areas.

Based on this definition, Harrisburg assumes that lands within the 100-year floodplain and wetlands identified in the local wetland inventory are "unsuitable" for development.

Table 3-4 shows vacant and partially vacant land by development and constraint status. The data show that about 131 acres within vacant or partially vacant tax lots are unavailable for development (e.g., they are either developed portions of partially vacant lots, or constrained, or have reduced development capacity per the discussion of jurisdictional wetlands above), leaving about 316 vacant suitable acres within the UGB. Map 3-3 shows the location of vacant and partially vacant land by zone.

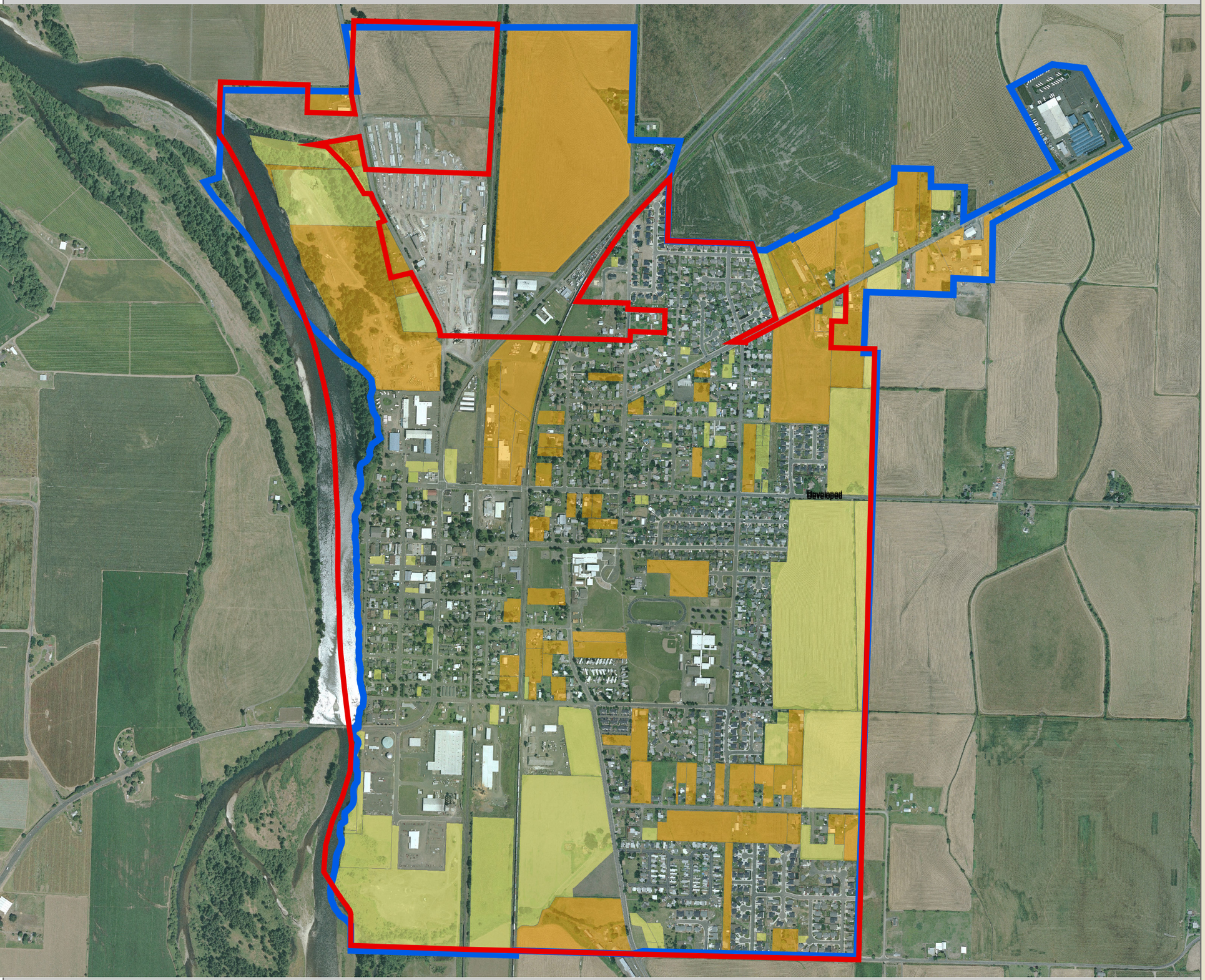
[5] http://www.cityofalbany.net/images/stories/planning/2006AlbanyHousingNeedAnalysis.pdf. Adopted April 25, 2007 as Exhibit D to Ordinance 56 69 Planning File: CP-02-07.

Table 3-4. Vacant and partially vacant land by development and constraint status, Harrisburg UGB, 2012

Area	Acres in Tax Lots by Constraint Status				
	Total	Developed	Constrained	Reduced Capacity	Suitable
Inside City Limits					
Partially Vacant	139.4	27.0	32.3	9.3	70.8
Vacant	184.8	0.0	32.1	16.4	136.3
Subtotal	**324.2**	**27.0**	**64.4**	**25.7**	**207.1**
Between City Limits and UGB					
Partially Vacant	111.9	6.5	0.9	3.9	100.6
Vacant	10.6	0.0	0.0	2.2	8.5
Subtotal	**122.5**	**6.5**	**0.9**	**6.1**	**109.0**
Total	**446.7**	**33.5**	**65.3**	**31.8**	**316.2**

Source: City of Harrisburg GIS data; analysis by ECONorthwest
Note: Totals may not add exactly because of small rounding errors.

Map 3.3
Vacant and Partially Vacant Land
City of Harrisburg
Oregon



Legend

- Urban Growth Boundary
- City Limit

Classification

- Partially Vacant
- Vacant

N

0 2,500 5,000

Feet

Cartography/GIS: ECONorthwest, December 2012.

Table 3-5 shows vacant and partially vacant land by generalized zoning categories. The results show that about 49% of the land available in the Harrisburg UGB is zoned for residential uses. About 1% is zoned for commercial or other employment uses, while nearly 50% is zoned for industrial uses.

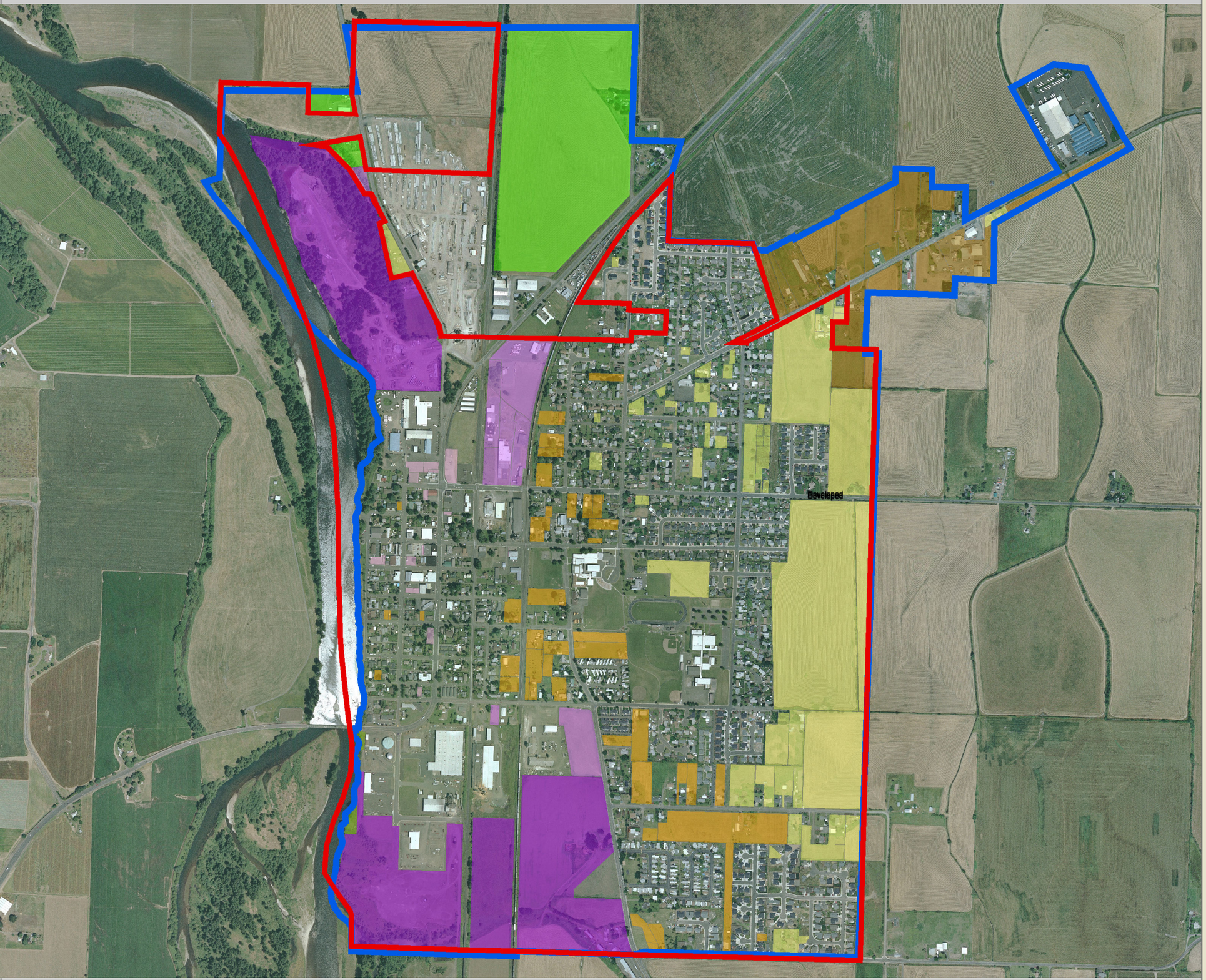
Table 3-5. Vacant and partially vacant land by Zoning, Harrisburg UGB, 2012

Area/Zone	Tax Lots	Total Acres	Developed Acres	Const. Acres	Unbuildable Jurisdictional Wetland Acres	Suitable Acres	Percent of Suitable Acres
City Limits							
R-1	62	122.0	9.5	0.0	25.2	87.2	27.6%
R-2	52	41.2	14.0	0.0	0.5	26.8	8.5%
M-1	8	22.6	2.0	2.5	0.0	18.1	5.7%
M-2	14	133.7	1.5	61.6	0.0	70.6	22.3%
GW	3	1.3	0.0	0.3	0.0	1.1	0.3%
C-1	18	3.4	0.0	0.0	0.0	3.4	1.1%
Subtotal	**157**	**324.2**	**27.0**	**64.4**	**25.7**	**207.1**	**65.5%**
Between City Limits and UGB							
UGA - EFU (Ind)	3	72.1	1.5	0.9	0.0	69.6	22.0%
UGA-RR-5	14	43.7	4.5	0.0	6.1	33.1	10.5%
R-1/UGA-RR-5	1	6.8	0.5	0.0	0.0	6.3	2.0%
Subtotal	**18**	**122.5**	**6.5**	**0.9**	**6.1**	**109.0**	**34.5%**
Total	**175**	**446.7**	**33.5**	**65.3**	**31.8**	**316.2**	**100.0%**

Source: City of Harrisburg GIS data; analysis by ECONorthwest
Note: UGA – EFU lands are designated for industrial uses
Note: Totals may not add exactly because of small rounding errors.

Map 3-4 shows vacant and partially vacant land by zone. Map 3-5 shows vacant and partially vacant land by zone and the location of floodplain and wetland constraints.

Map 3.4
Vacant and Partially Vacant Land by Zoning
City of Harrisburg
Oregon



Legend

- Urban Growth Boundary
- City Limit

Zoning

City Zoning

- C-1
- GW
- M-1
- M-2
- R-1
- R-2

County Zoning

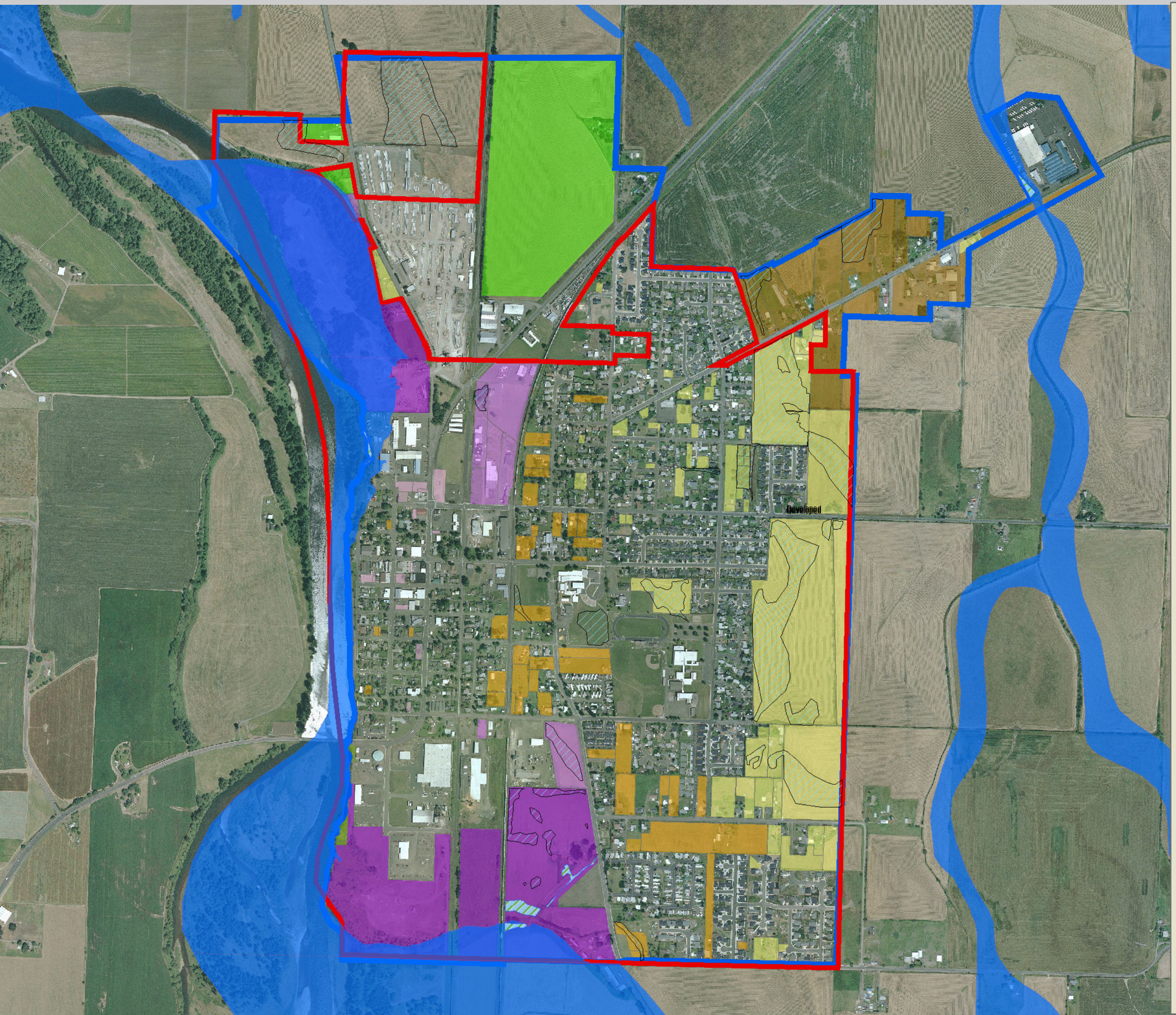
- Rural Residential
- Exclusive Farm Use

N

0 2,500 5,000

Feet

Cartography/GIS: ECONorthwest, December 2012.



Map 3.5
Vacant and Partially Vacant Land by Zoning With Development Constraints
City of Harrisburg
Oregon

Legend

Urban Growth Boundary
City Limit

Zoning

City Zoning

C-1
GW
M-1
M-2
R-1
R-2

County Zoning

Rural Residential
Exclusive Farm Use

Wetlands (not locally significant)
Locally Significant Wetlands
100-Year Floodplain

N

0 2,500 5,000
Feet

Cartography/GIS: ECONorthwest, December 2012.

Table 3-6 shows vacant land by zoning by parcel size. This analysis is useful in that it shows the distribution of vacant land by parcel size, which allows an evaluation of whether a sufficient mix of parcels (e.g., parcels of various sizes) is available. The distribution varies by zoning. For example, few vacant parcels exist in the Industrial Districts—a result that is consistent with the average size of industrial parcels. The residential designations show a broader range of parcel sizes. Harrisburg has 4 parcels greater than 20 buildable acres in size, and 1 greater than 50 buildable acres. Harrisburg has no commercial sites larger than one acre.

Table 3-6. Vacant land by zoning and parcel size, Harrisburg UGB, 2012

	Lot Size (Suitable Acres)									
Zone	**<0.25**	**0.25-0.49**	**0.50-0.99**	**1.00-1.99**	**2.00-4.99**	**5.00-9.99**	**10.00-19.99**	**20.00-50.00**	**50+**	**Total**
Buildable Acres										
R-1	3.2	2.9	3.6	10.6	10.6	26.6	-	29.7	-	87.2
R-2	2.5	4.9	3.4	7.3	-	8.7	-	-	-	26.8
M-1	0.0	0.8	-	3.6	7.0	6.7	-	-	-	18.1
M-2	0.1	0.6	1.5	-	7.0	11.9	-	49.5	-	70.6
GW	0.1	0.3	0.7	-	-	-	-	-	-	1.1
C-1	1.4	1.0	1.0	-	-	-	-	-	-	3.4
UGA - EFU	-	-	-	2.6	-	-	-	-	67.1	69.6
UGA-RR-5	0.1	0.5	-	7.9	17.5	7.2	-	-	-	33.2
R-1/UGA-RR-5	-	-	-	-	-	6.3	-	-	-	6.3
Total Acres	**7.4**	**11.0**	**10.1**	**31.9**	**42.1**	**67.4**	**-**	**79.2**	**67.1**	**316.2**
Number of Tax Lots										
R-1	33	8	5	7	3	3	0	1	0	60
R-2	29	12	5	5	0	1	0	0	0	52
M-1	1	2	0	2	2	1	0	0	0	8
M-2	4	2	2	0	2	2	0	2	0	14
GW	1	1	1	0	0	0	0	0	0	3
C-1	14	3	1	0	0	0	0	0	0	18
UGA - EFU	0	0	0	2	0	0	0	0	1	3
UGA-RR-5	2	1	0	4	5	1	0	0	0	13
R-1/UGA-RR-5	0	0	0	0	0	1	0	0	0	1
Total Acres	**84**	**29**	**14**	**20**	**12**	**9**	**0**	**3**	**1**	**172**
Percent of Total										
Buildable Acres	2%	3%	3%	10%	13%	21%	0%	25%	21%	100%
Tax Lots	49%	17%	8%	12%	7%	5%	0%	2%	1%	100%

Source: City of Harrisburg GIS data; analysis by ECONorthwest
Note: Totals may not add exactly because of small rounding errors.

REDEVELOPMENT POTENTIAL

Redevelopment potential addresses land that is classified as developed that may redevelop during the planning period. While many methods exist to identify redevelopment potential, a common indicator is improvement to land value ratio. A threshold used in some studies is an improvement to land value ratio of 1:1. Not all, or even a majority of parcels that meet these criteria for redevelopment *potential* will be assumed to redevelop during the planning period.

Table 3-7 shows a summary of potentially redevelopable parcels by plan designation. A ratio of less than 1:1 is a typical, but arbitrary, standard for identifying lands with redevelopment potential. The results show that about 37 acres have an improvement to land value ratio of less than 1:1 and 20 acres that have an improvement to land value ratio of less than 0.5:1.

Table 3-7. Improvement to land value ratio, developed land, Harrisburg UGB

	Improvement to Land Value Ratio									
Zoning	**0**	**0.01-0.24**	**0.25-0.49**	**0.50-0.74**	**0.75-0.99**	**1.00-1.99**	**2.00-2.99**	**3.00+**	**No data**	**Total**
		More Redevelopment Potential				**Less Redevelopment Potential**				
C-1	0.5	1.8	2.9	0.9	2.2	7.3	3.3	2.4	-	21.3
GW	0.2	-	-	-	0.2	1.5	0.4	0.2	-	2.5
M-1	4.9	1.6	-	0.8	-	1.4	3.0	-	2.7	14.5
M-2	47.9	-	-	-	-	1.5	-	60.8	-	110.3
R-1	0.8	0.9	0.9	0.4	3.8	52.7	43.3	18.4	0.1	121.3
R-2	4.5	1.9	0.7	2.4	4.9	47.7	23.2	15.1	-	100.3
UGA - HI	-	-	-	-	-	-	-	24.9	-	24.9
UGA - LI	-	2.5	3.4	-	-	-	-	21.2	-	27.1
UGA-RR-5	-	-	1.2	0.3	1.1	0.4	-	-	-	3.0
UGA-UGM-10	2.3	1.8	-	-	-	0.3	1.4	-	-	5.8
Total	**61.2**	**10.5**	**9.1**	**4.8**	**12.1**	**112.8**	**74.7**	**143.0**	**2.8**	**431.1**

Source: City of Harrisburg GIS data; analysis by ECONorthwest
Note: Totals may not add exactly because of small rounding errors.

Chapter 4

Housing Needs Analysis

This chapter provides the technical analysis to update the Housing (Goal 10) element of the Harrisburg Comprehensive Plan. Statewide Planning Goal 10 addresses housing in Oregon and provides guidelines for local governments to follow in developing their local comprehensive land use plans and implementing policies.

At a minimum, local comprehensive plans and policies that address housing must meet the requirements of Goal 10. Goal 10 requires incorporated cities to complete an inventory of buildable residential lands and to encourage the availability of adequate numbers of housing units in price and rent ranges commensurate with the financial capabilities of its households.

Goal 10 defines needed housing types as "housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels." This definition includes government-assisted housing and mobile home or manufactured dwelling parks as provided in ORS 197.303 and ORS 197.475 to 197.490. For communities with populations greater than 2,500 and counties with populations greater than 15,000, needed housing types include (but are not limited to):

- Attached and detached single family housing and multiple-family housing for both owner and renter occupancy; and
- Manufactured homes on individual lots planned and zoned for single-family residential use.

Harrisburg meets the population threshold for these statutory requirements; Goal 10 requires all incorporated cities to address housing need in their comprehensive plans. The housing needs analysis in this chapter addresses these housing types.

METHODS

While Harrisburg is not required to comply with the provisions of ORS 197.296, ECONorthwest generally followed the methodology described in the DLCD report *Planning for Residential Development*, referred to as the "workbook." The workbook generally describes seven steps in conducting a housing needs analysis:

1. Determine the number of new housing units needed in the next 20 years.
2. Identify relevant national, state, and local demographic trends that will affect the 20-year projection of structure type mix.

3. Describe the demographic characteristics of the population, and household trends that relate to demand for different types of housing.

4. Determine the types of housing that are likely to be affordable to the projected households.

5. Estimate the number of additional new units by structure type.

6. Determine the density ranges for all plan designations and the average net density for all structure types.

7. Evaluate unmet housing needs and the housing needs of special populations (Goal 10 needs).

The remainder of this chapter is organized into three sections. The first section describes residential development trends in Harrisburg, the second describes demand for new housing units over the 20-year planning period; and the third addresses housing needs.

RESIDENTIAL DEVELOPMENT TRENDS

An evaluation of historic development trends is useful in developing a better understanding of trends in the local housing market. Table 4-1 shows dwelling units by type in Harrisburg in 2000 and 2006-2010 as reported by the Census.[6] According to the Census, Harrisburg had 1,037 dwelling units in 2000 and 1,263 dwelling units in 2006-2010—an increase of 226 dwelling units. Notably, Harrisburg added 179 single-family detached units during this period. The percentage of single-family detached dwelling units remained stable at about 60% of all dwelling units in 2000 and 2006-2010. The share of multiple family dwelling decreased from 17% to 13% and the share of mobile/manufactured units decreased slightly from 20% to 19%. The Census data suggest that housing development in Harrisburg during the 2000's included a mixture of housing types. The City added housing types that are affordable to lower income households (single-family attached and manufactured).

The share of single-family housing types (single-family detached and manufactured homes) increased from 80% of housing to 82% of housing over the period. The share of multifamily housing types (single-family attached and multifamily housing) decreased from 20% to 18%.

[6] Data from the U.S. Census Bureau is used throughout this report. One type of Census data used is Decennial Census data, from 2000 and 2010, which predominantly provides information about population characteristics (e.g., number of people, age, or ethnicity) and some types of housing data (e.g., number of dwelling units or household tenure). The other type of Census data used is American Community Survey (ACS) data, which provides details such as household income, household income by age of householder, size of household, or age of housing stock. The most recent ACS data available for Harrisburg was collected over the 2006 to 2010 period. For more information about the ACS, see: http://www.census.gov/acs/www/data_documentation/data_main/ .

Table 4-1. Dwelling units by type, Harrisburg City Limit, 2000 and 2006-2010

Housing Type	2000 Census Number	2000 Census Percent	2006-2010 Census Number	2006-2010 Census Percent	New DU 2000 to 2006-2010 Number	New DU 2000 to 2006-2010 % Change
Single-family detached	623	60%	802	63%	179	29%
Single-family attached	28	3%	66	5%	38	136%
Multiple family	176	17%	160	13%	-16	-9%
Mobile/ Manufactured	210	20%	235	19%	25	12%
Total housing units	**1,037**	**100%**	**1,263**	**100%**	**226**	**22%**

Source: US Decennial Census, 2000 & American Community Survey, 2006-2010

Table 4-2 shows housing tenure for 2000 and 2010. Homeownership rate fell slightly between 2000 and 2010. Seventy-two percent of Harrisburg's dwellings are occupied by owners and the remaining 28% are renter occupied.

Table 4-2. Dwelling units by tenure, Harrisburg City Limit, 2000 and 2010

Housing Tenure	2000 Census Number	2000 Census Percent	2010 Census Number	2010 Census Percent	New DU 2000-2010 Number	New DU 2000-2010 % Change
Owner occupied	738	75%	891	72%	153	21%
Renter occupied	251	25%	347	28%	96	38%
Total tenure	**989**	**100%**	**1238**	**100%**	**249**	**25%**

Source: US Decennial Census, 2000 & 2010

Table 4-3 shows the tenure of housing types in Harrisburg for the 2006-2010 period. Nearly two-thirds of all housing in Harrisburg is single-family detached and 82% of single-family detached is owner-occupied. About one-fifth of Harrisburg's housing is manufactured homes and nearly two-thirds of manufactured housing is owner-occupied.

Single-family attached and multifamily housing accounts for the remaining portion of Harrisburg's housing (nearly one-fifth of all housing). These types of attached housing are predominantly renter-occupied.

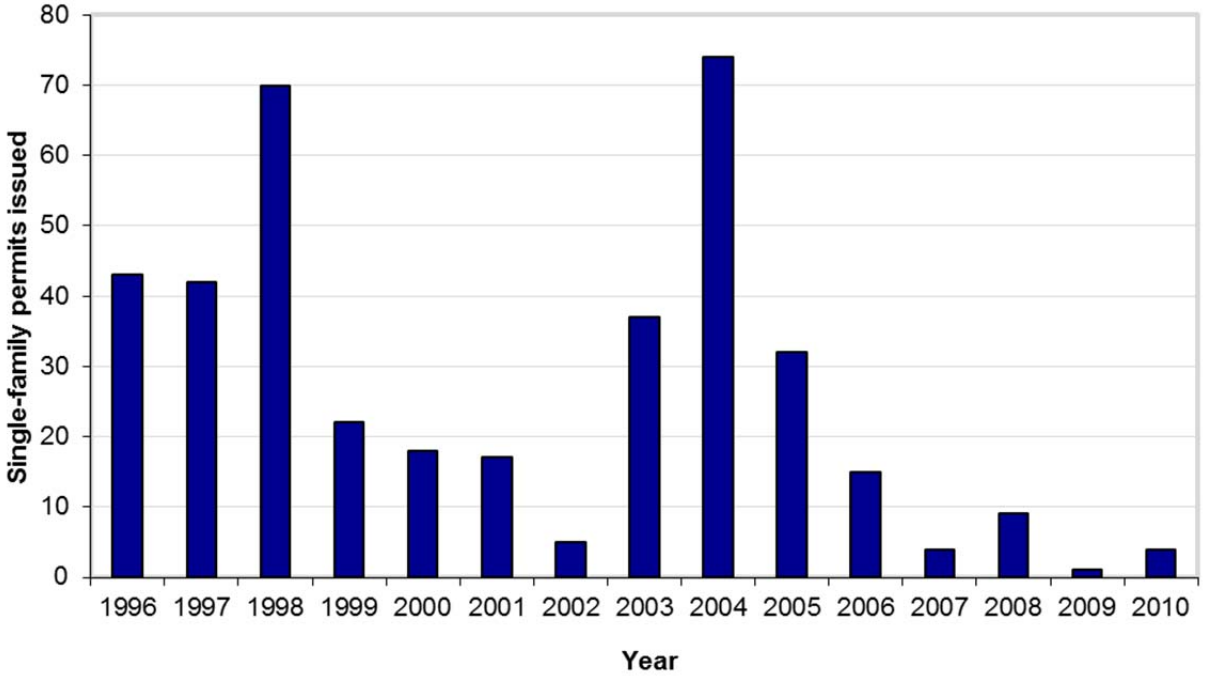
Table 4-3. Dwelling units by type and tenure, Harrisburg City Limit, 2006-2010

Housing type	Owner Occupied DU by Type	Owner Occupied Percent by Type	Renter Occupied DU by Type	Renter Occupied Percent by Type	All Dwellings DU by Type	All Dwellings Percent of Total DU
Single-family detached	609	82%	133	18%	742	62%
Single-family attached	18	27%	48	73%	66	5%
Multiple family	5	3%	155	97%	160	13%
Mobile/ Manufactured	150	64%	85	36%	235	20%
Total	**782**	**65%**	**421**	**35%**	**1,203**	**100%**

Source: US Census, American Community Survey, 2006-2010
Note: The number of dwelling units in Harrisburg in 2010 Table 4-1 and Table 4-2 are different (by 35 dwelling units). Table 4-1 includes all dwelling units, regardless of occupancy. Table 4-2 only includes occupied dwelling units.

Figure 4-1 shows the number of building permits issued for single-family dwellings in Harrisburg between 1996 to 2010. Harrisburg issued 393 permits for single-family houses over the fourteen-year period. The number of permits varied from year to year, with the largest number of permits issued in 2004 (74) and 1998 (70). The fewest permits were issued in 2009 (1).

Figure 4-1. Building permits issued for single-family dwellings, Harrisburg, 1996 to 2010



Source: City-data.com, 2010

Table 4-4 shows applications for subdivisions in Harrisburg since 2000. The table shows that between 2000 and 2007, Harrisburg had applications for 12 subdivisions, which included about 64 acres and 275 lots. The majority of subdivisions were either single-family detached dwellings only or a mix of single-family detached dwellings and duplexes.

The average density of development was 4.4 dwellings per gross acre and 5.4 dwellings per net acre. The density of dwelling units per acre was lower for development in R-2 than in R-1.

Table 4-4. Applications for subdivisions, Harrisburg, 2000 to 2012

Subdivision name	Year of Application	Size (acres)	Number of Lots	Total Lots Acreage	Zone	Type of homes
Harriswood	2000	12.9	54	9.5	R-1	Single-family detached
Marcus Landing	2001	9.2	38	6.4	R-2	Single-family detached
South Eagle	2002	4.5	16	3.5	R-1	Single-family detached
North Eagle	2002	2.1	8	1.8	R-1	Single-family detached
Harris Glenn	2003	9.1	39	7.5	R-1	Single-family detached
Kwake Estates	2002	3.4	22	2.7	R-2	Duplex
Max Hammer Park	2003	5.5	24	4.1	R-1/R-2	Single-family detached & duplex
Harris Glenn 1st Add	2004	4.0	27	3.4	R-1	Single-family detached & duplex
Kwake Estates Phase 2	2004	4.1	13	3.8	R-2	Single-family detached & duplex
Spurlock Meadows	2004	2.0	6	1.2	R-2	Duplex
N7	2006	4.7	20	4.7	R-1	Single-family detached
Territorial Divide	2007	2.2	8	1.8	R-1	Single-family detached
Densities by zone						
R-1						
DU per Gross Acre	4.4					
DU per Net Acre	5.4					
R-2						
DU per Gross Acre	4.2					
DU per Net Acre	5.6					
Total						
DU per Gross Acre	4.3					
DU per Net Acre	5.5					

Source: City of Harrisburg, 2012

An analysis of overall density is also helpful in evaluating development trends. Table 4-5 shows average residential density for single-family and multifamily units in Harrisburg.[7] The data indicate that Harrisburg has an average density of 4.7 dwelling units per net acre. More than 90% of Harrisburg's single-family units are detached, having an average density of 4.5 dwelling units per net acre. Multifamily housing had an average density of 9.3 dwelling units per net acre.

Table 4-5. Net density of single-family and multifamily housing, Harrisburg, 2006

	Units	Net Acres	Net Density
Single-family			
Attached	2	0.3	6.3
Detached	726	161.9	4.5
Mobile Home	58	13.3	4.4
Multifamily			
Multifamily	67	7.2	9.3
Total/Average	**853**	**182.7**	**4.7**

Source: City of Harrisburg data; analysis by ECONorthwest

[7] The density analysis in Table 4-5 was completed for the 2007 Urbanization report and included development in Harrisburg as of 2006. Since Harrisburg had little development since 2006, the average densities in Table 4-5 reflect existing average residential densities in Harrisburg.

NEW DWELLING UNITS NEEDED, 2013-2033

Estimating total new dwelling units needed during the planning period is a relatively straightforward process. Demand for new units is based on the county coordinated population forecast as required by ORS 195.036, ORS 197.296, and OAR 660-024-0040(1). Persons in group quarters are then subtracted from total persons to get total persons in households. Total persons in households is divided by persons per household to get occupied dwelling units. Occupied dwelling units are then inflated by a vacancy factor to arrive at total new dwelling units needed.

The following sections step through that logic and describe the basis for the assumptions applied to the estimate of demand for new dwelling units.

POPULATION

In 2007, Linn County adopted a coordinated population forecast that projected population growth in Harrisburg from 2006 to 2027.[8] Table 2-3 shows that Harrisburg's adopted forecast shows the City growing an average annual rate of 2.8%.

Table 4-6 presents Harrisburg's population forecast for the 2013 to 2033 period. For the 2013 to 2033 period, we assumed that Harrisburg would grow at the adopted rate (2.8%) between 2006 and 2013. ECO assumed that Harrisburg would continue growing at 2.8% annually through 2033. Harrisburg is forecast to growth by 3,001 people over the 20-year period.

Table 4-6. Population forecast, Harrisburg, 2013-2033

Year	Population
2013	4,070
2033	7,071
Change 2013 to 2033	
People	3,001
Percent Change	74%
AAGR	2.80%

Source: Linn County Order Number 2007-83, Planning File BC07-004

PERSONS IN GROUP QUARTERS

Persons in group quarters do not consume standard housing units: thus, any forecast of new people in group quarters is typically backed out of the population forecast for the purpose of estimating housing demand. Group quarters can have a big influence on housing in cities with colleges (dorms), prisons, or a large elderly population (nursing homes). In general, one assumes that any new requirements for these housing types will be met by institutions (colleges, government agencies, health-care corporations) operating outside what is typically defined as

[8] The forecast adoption is documented in Linn County Order Number 2007-83, Planning File BC07-004.

the housing market. Group quarters, however, require land and are typically built at densities that are comparable to multiple-family dwellings.

According to Census data, no persons resided in group quarters in 2010 in Harrisburg. The fact that no group quarters existed in Harrisburg in 2010 does not mean that group quarters will not exist here in the future. The key area where one would expect changes in group quarters are in senior care facilities because of the demographic shift that is occurring at the baby-boomers age. Residents may want to continue living in their familiar neighborhoods as they age.

Consistent with the overall aging of the population, it is reasonable to expect persons in nursing homes to increase at a faster rate than the overall population. About 1% of Linn County's population resided in group quarters in 2010. Of the 1,227 County residents in group quarters, 362 (0.3% of all County residents) were in nursing homes.

The estimates assume that Harrisburg's population is similar to the County's and that the percentage of persons in nursing homes will remain constant in the future, about 20 persons would reside in nursing homes in 2033. It will be important for Harrisburg to plan for a range of housing types to allow aging citizens to maintain their residence in Harrisburg. Thus, Harrisburg will need to plan for some persons in group homes.

AVERAGE HOUSEHOLD SIZE

In the 1980s, traditional families (married couple, with one or more children at home) accounted for 29% of all households in Oregon. In 2000 that percentage dropped to 23%; which further decreased to 19% in 2010. It is likely to continue to fall, but not as dramatically. Moreover, the average household size decreased over the past five decades and is likely to continue decreasing. The average household size in Oregon was 2.60 in 1980, 2.52 in 1990, 2.51 in 2000, and 2.47 in 2010. The direct impact of decreasing household size on housing demand is that smaller households means more households, which means a need for more housing units.

Table 4-7 shows that household sizes in Harrisburg increased from 2.83 in 2000 to 2.88 in 2010, contrary to national and state trends that show household size decreasing. Harrisburg had higher average household size than Linn County or Oregon.

Table 4-7. Average household size, Linn County and Harrisburg, 2010

	Persons per HH
Linn County	
Average household size	2.55
Owner-occupied units	2.57
Renter-occupied units	2.52
Harrisburg	
Average household size	2.88
Owner-occupied units	2.88
Renter-occupied units	2.89

Source: U.S. Census

Future housing mix and tenure are an important variable in a housing needs analysis. OAR 660-024-0040 (7) (a) allows a jurisdiction to use the most current estimate of average household size from the Census. For the purpose of this study, the average household size is assumed to be 2.88 persons for all households.

VACANCY RATES

Vacant units are the final variable in the basic housing demand model. Vacancy rates are cyclical and represent the lag between demand and the market's response to demand in additional dwelling units. Analysts consider a 2%-4% vacancy rate typical for single-family units; 4%-6% is typical for multifamily residential units. According to the 2010 Census, about 6.1% of all housing stock in Harrisburg was vacant. The forecast of needed dwelling units assumes a vacancy rate of 6.0%.

FORECAST OF NEW HOUSING UNITS, 2013-3033

The preceding analysis leads to a forecast of new housing units likely to be built in Harrisburg for the period 2013-3033 . Table 4-8 summarizes the analysis. Based on the assumptions shown in Table 4-8, Harrisburg will need 1,097 new dwelling units to accommodate population growth between 2013 and 2033. An average of 55 new dwelling units will be needed annually between 2013 and 2033.

The baseline forecast assumes 70% of new housing will be single-family housing types (single-family detached and manufactured) and 30% will be multifamily. This assumption is based on a needs-induced shift in tenure in Harrisburg, from 82% single-family and 18% multifamily in 2010. This shift is also based on national, state, and regional trends towards smaller lots and increasing need for more multifamily units.

The forecast of new units does not include dwellings that will be demolished and replaced. This analysis does not factor those units in; it assumes they will be

replaced at the same site and will not create additional demand for residential land.

Table 4-8. Demand for new housing units, Baseline Assumptions, Harrisburg, 2013-2033

Variable	Baseline Estimate of Housing Units
Change in persons	3,001
minus Change in persons in group quarters	20
equals Persons in households	2,981
Average Household size	2.88
New occupied DU	1,035
times Vacancy rate	6.0%
equals Vacant dwelling units	62
***equals* Total new dwelling units**	**1,097**
Dwelling units needed annually	55

Source: Calculations by ECONorthwest based on draft population forecasts and US Census data.

HOUSING NEEDS ANALYSIS

The DLCD Workbook describes five steps in analyzing housing needs in a community. Specifically, these steps are:

1. Identify relevant national, state, and local demographic and economic trends and factors that may affect the 20-year projection of structure type mix.

2. Describe the demographic characteristics of the population and, if possible, housing trends that relate to demand for different types of housing.

3. Determine the types of housing that are likely to be affordable to the projected households based on household income.

4. Estimate the number of additional needed units by structure type.

5. Determine the needed density ranges for each plan designation and the average needed net density for all structure types.

The remainder of this section is organized around this five-step process.

STEP 1. IDENTIFY RELEVANT NATIONAL, STATE, AND LOCAL DEMOGRAPHIC AND ECONOMIC TRENDS AND FACTORS THAT MAY AFFECT THE 20-YEAR PROJECTION OF STRUCTURE TYPE MIX

The first step in a housing needs assessment is to identify relevant national, state, and local demographic and economic trends and factors that affect local housing markets. Appendix A provides a more detailed discussion of these trends. The evaluation that follows is based on previous research conducted by ECONorthwest for other housing needs studies as well as new research to update the evaluation of trends that may affect housing mix.[9]

NATIONAL HOUSING TRENDS SUMMARY

The overview of national, state, and local housing trends builds from previous work by ECO, Urban Land Institute (ULI) reports, and conclusions from The *State of the Nation's Housing, 2012* report from the Joint Center for Housing Studies of Harvard University.[10] The Harvard report summarizes the national housing outlook as follows:

> "After several false starts, there is reason to believe that 2012 will mark the beginning of a true housing market recovery. Sustained employment growth remains key, providing the stimulus for stronger household growth and bringing relief to some distressed homeowners. Many rental markets have already turned the corner, giving a lift to multifamily construction but also eroding affordability for many low-income households. While gaining ground, the homeowner market still faces multiple challenges. If the broader economy weakens in the short term, the housing rebound could again stall."

The national housing market continues to suffer from historically high loan delinquencies and high foreclosure rates. The slowdown has continued through 2012, although the national housing market shows signs of recovery. Some national housing experts expect recovery of the housing market to take three to five years (from 2010). During that period, experts are projecting little growth in single-family housing types and slow growth in multifamily housing types.[11]

National housing market trends include:[12]

- **Beginnings of improvement in the housing market depression.** The last seven years saw a continuation of the significant departure from the recent housing boom that had lasted for 13 consecutive years

[9] The following discussion is largely based on the conclusions from The State of the Nation's Housing, 2006 report from the Joint Center for Housing Studies of Harvard University.

[10] http://www.jchs.harvard.edu/research/publications/state-nation%E2%80%99s-housing-2012

[11] Urban Land Institute, "2011 Emerging Trends in Real Estate"

[12] These trends are based on information from: (1) The Joint Center for Housing Studies of Harvard University's publication "the State of the Nation's Housing 2010," (2) Urban Land Institute, "2011 Emerging Trends in Real Estate," and (3) the U.S. Census.

(1992-2005). By 2007 and early 2008, housing market problems had reached the rest of the economy, resulting in a nationwide economic slowdown and recession. The slowdown has continued through 2012, although the national housing market shows signs of recovery.

- **Decrease in the oversupply of housing.** From 2000 to 2005 housing starts and manufactured home placements appeared to have been roughly in line with household demand. In 2005, with demand for homes falling but construction coming off record levels, the surplus of both new and existing homes was much higher than in recent years. The supply of new homes for sale reached 6.2 months in the first quarter of 2012, the lowest level since 2006. According to the Joint Center for Housing Studies, a six-month supply is a rough indicator of market balance. However, the promising home supply figures do not account for the number of vacant units held off the market. In 2011, the number of vacant units held off market rose to 5.5% of housing stock, up from about 4.5% in 2000-2002. When these units come on the market, they could drag home prices down further.
- **Declines in homeownership.** After 13 successive years of increases, the national homeownership rate slipped in each year since 2005, to 65.4% in the first quarter 2012. The Urban Land Institute projects that homeownership will decline to around the low sixty percent range.
- **Leveling off of foreclosures.** The number of delinquent loans or home foreclosures has begun to decrease, although a large number of homes remain in foreclosure proceedings. The number of loans 90 days or more delinquent decreased since its peak in late 2009. At the end of 2009, 5.1% of mortgages were 90 days or more delinquent; by the first quarter of 2012, the percent had fallen to 3.1%. Delinquencies and foreclosures are concentrated by state, with California, Florida, Nevada, and Arizona hit particularly hard.
- **Decreases in housing prices.** Since 2008, foreclosures have contributed to a sharp decrease in housing prices, leaving roughly 11.1 million homeowners underwater on their mortgages (where the value of the house is less than the owner's mortgage). These loans equate to $717 billion in negative equity.
- **Growth in rentals.** The supply of rental units continues to grow, with an addition of 5 million rental households from 2005 to 2011. The rental vacancy rate increased from 9.6% in 2007 to 10.6% in 2009, in part because some homeowners choose to rent a house they are unable to sell, rather than leaving it vacant or lowering the sales price. The rental vacancy rate fell to 9.5% in 2011.
- **Housing prices.** House prices declined since the height of the housing bubble. Between October 2005 and March 2010, the median house price decreased by 26 percent. The median home sales price dropped from 4.7 times the median household income in 2005 to 3.4 times median household income in 2009.

- **Housing affordability.** In 2010, more than one-third of American households spent more than 30% of income on housing, and 18% spent upwards of 50%. The number of severely cost-burdened households (spending more than 50% of income on housing) increased by 6.4 million households from 2001 to 2010, to a total of nearly 20.2 million households in 2010. In 2010, there was a 5.1 million unit gap between supply and demand for affordable housing units.

  According to the Joint Center for Housing Studies, these statistics understate the true magnitude of the affordability problem because they do not capture the tradeoffs people make to hold down their housing costs. For example, these figures exclude the 2.5 million households that live in crowded or structurally inadequate housing units. They also exclude the growing number of households that move to locations distant from work where they can afford to pay for housing, but must spend more for transportation to work.

- **Long-term growth and housing demand.** The Joint Center for Housing Studies indicates that demand for new homes could total as many as 12 million units nationally between 2010 and 2020. Much of the demand will come from baby boomers, echo boomers, and immigrants.

- **Changes in housing preference.** Housing preference will be affected by changes in demographics, most notably the aging of the baby boomers, housing demand from the echo-boomers (who range from their late teens to late twenties in 2012), and growth foreign-born immigrants and their descendants. Baby boomers housing choices will affect housing preference and homeownership, with some boomers likely to stay in their home as long as they are able and some preferring other housing products, such as multifamily housing or age-restricted housing developments.

  In the near-term, echo-boomers and new immigrants may increase demand for rental units. The long-term housing preference of echo-boomers and new immigrants is uncertain. They may have different housing preferences as a result of the current housing market turmoil and may prefer smaller owner-occupied units or rental units. On the other hand, their housing preferences may be similar the baby-boomers, with a preference for larger units with more amenities.

STATE DEMOGRAPHIC TRENDS

Oregon's Draft *2011-2015 Consolidated Plan* includes a detailed housing needs analysis as well as strategies for addressing housing needs statewide.[13] The plan concludes that "Oregon's changing population demographics are having a

[13] http://www.ohcs.oregon.gov/OHCS/HRS_Consolidated_Plan_5yearplan.shtml

significant impact on its housing market." It identified the following population and demographic trends that influence housing need statewide. Oregon is:

- Growing more slowly than the national average since 2007
- Facing housing cost increases but higher unemployment and lower wages, when compared to the nation
- Having higher foreclosure rates since 2005, compared with the previous two decades
- Losing federal subsidies on about 8% of federally subsidized Section 8 housing units
- Losing housing value in some markets within Oregon
- Losing manufactured housing parks, with a 25% decrease in the number of manufactured home parks between 2003 and 2010
- Increasingly older, more diverse, and, less affluent households[14]

LOCAL AND REGIONAL TRENDS IN DEMOGRAPHICS AND HOUSING AFFORDABILITY

The housing boom from 1992 to 2005 was the longest period of sustained housing expansion since 1970. By the end of 2006, the national homeownership rate was 67.3%, decreasing to 65.4% by first quarter 2012. The Joint Center for Housing Studies predicts that the homeownership rate will continue to decline in the near-term due to the foreclosure backlog and tight credit conditions.

- Demographic trends are expected to result in changes in housing demand over the planning period.
    - Changes in the age structure of the U.S. population, namely the aging of the baby boomers and the coming-of-age of the echo boomers (people born between 1982 and 1995), is expected to result in higher demand for multifamily and other housing types, such as active retirement communities.
    - Persistent income disparities and the movement of echo boomers into young adulthood may result in a shift away from single-family detached homes towards more affordable multifamily apartments, town homes, and manufactured homes.
    - Continued growth in minority households will play a key role in accelerating household growth over the next 10 years. The Joint Center for housing estimates that seven of ten new households in 2010-2020 will be minority. Hispanics are the fastest growing minority in the U.S. and Oregon. The U.S. Census Bureau expects Hispanics to

[14] State of Oregon *Draft Consolidated Plan 2011 to 2015*

increase from 12.5% of the U.S. population in 2000 to 24% of the population in 2050.

- Demand for rental housing is expected to increase as a result of continued immigration and the growth of the echo boomers into young adulthood. Meanwhile growth among those between the ages of 45 and 74 will lift demand for higher-end rentals.

- Housing has become less affordable, especially for low and moderate income households. In 2010, more than in one-in-three American households spent more than 30% of income on housing, and nearly one-in-five households spent upwards of 50%. The national trend towards increased rent to income ratios is mirrored regionally in that a salary of two to three times minimum wage is needed to afford rents in Linn County.

The U.S Bureau of Census *Characteristics of New Housing* Report presents data that show trends in the characteristics of new housing for the nation, state, and local areas. Several trends in the characteristics of housing are evident from the *Characteristics of New Housing* Report:

- Larger single-family units on smaller lots. Between 1990 and 2011 the median size of new single-family dwellings increased 17%, from 1,905 sq. ft. to 2,227 sq. ft. nationally and 11% in the western region from 1,985 sq. ft. to 2,199 sq. ft. Moreover, the percentage of units under 1,400 sq. ft. nationally decreased from 16% in 1999 to 13% in 2011. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 26% of new one-family homes completed in 2011. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 1990 and 2011 the percentage of lots under 7,000 sq. ft. increased from 27% of lots to 33% of lots.

- Larger multifamily units. Between 1999 and 2011, the median size of new multiple family dwelling units increased by 8% nationally and in the western region. The percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 38% in 2011 nationally and from 26% to 35% in the western region.

- More amenities. Between 1990 and 2011 the percentage of single-family units built with amenities such as central air conditioning, 2 or more car garages, or 2 or more baths all increased. The same trend in increased amenities is seen in multiple family units.

Over the last four years, the trend towards larger units with more amenities faltered. Between 2007 and 2011, the median size of new single-family units has decreased by 2% nationally to 2,227 square feet. The western region has seen a 4% decrease in median size of new single-family units, to a median of 2,199 square feet. In addition, the share of new units with amenities (e.g., central air

conditioning, fireplaces, 2 or more car garages, or 2 or more bath) all decreased slightly.

It is unclear if these changes in unit size and amenities signal a long-term change in demand for housing or if these changes are a response to the current housing market turmoil. Numerous articles and national studies suggest that these changes may indicate a long-term change in the housing market, resulting from a combination of increased demand for rental units because of demographic changes (e.g., the aging of the baby boomers, new immigrants, and the echo-boomers), as well as changes in personal finance and availability of mortgages.[15]

These studies may be correct and the housing market may be in the process of a long-term change. On the other hand, long-term demand for housing may not be substantially affected by the current housing market. The echo-boomers and new immigrants may choose single-family detached housing and mortgages may become easier to obtain.

Harrisburg is centrally located between several major employment centers (Eugene, Corvallis, and Albany). This makes the city attractive to households that may have workers in one or more of the employment centers. This also makes Harrisburg a location that families would consider for homeownership products, while making it somewhat less attractive for rental units. Households seeking rental units will be more likely to select them in locations closer to their employment.

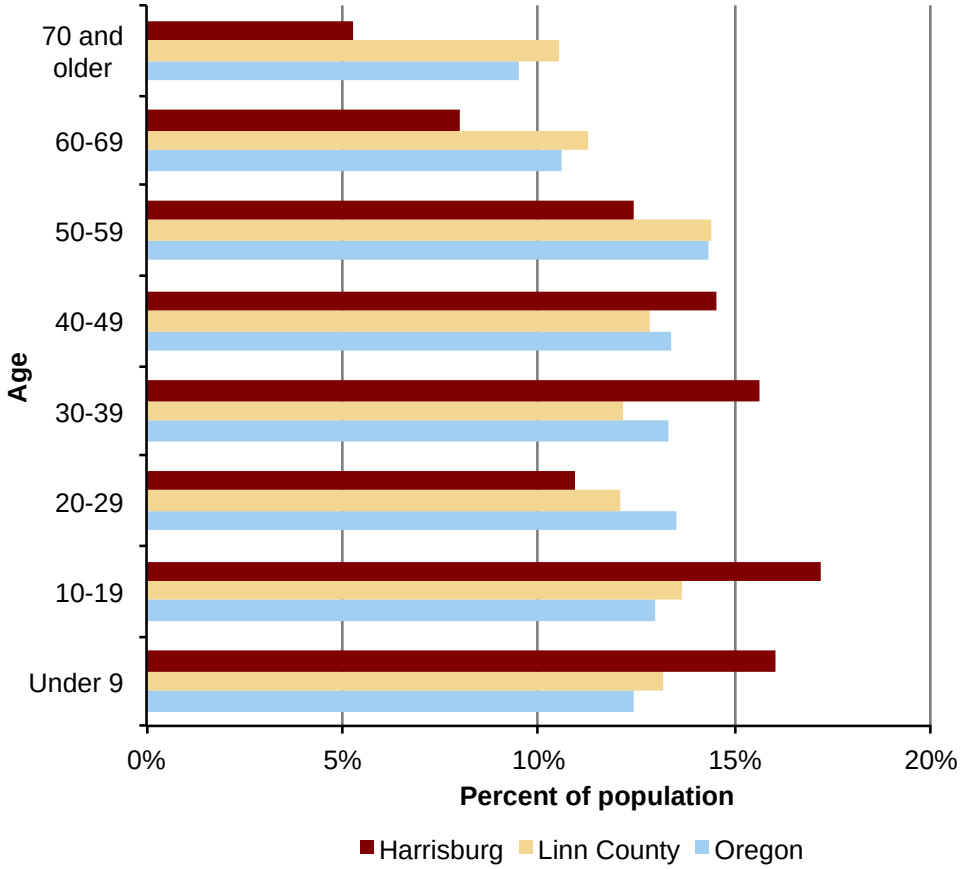
STEP 2. DESCRIBE THE DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION AND, IF POSSIBLE, HOUSING TRENDS THAT RELATE TO DEMAND FOR DIFFERENT TYPES OF HOUSING

Demographic characteristics are highly correlated with housing need. Factors such as age, income, migration and other trends affect both demand and need for housing.

Figure 4-2 compares age distribution in the City of Harrisburg, Linn County, and Oregon for 2010. The data show that Harrisburg has a higher share of residents 39 years and younger than Linn County or Oregon. Harrisburg has fewer people 50 years and older than Linn County or Oregon. These trends suggest that Harrisburg is attracting younger people, including families with children.

[15] These studies include "Hope for Housing?" by Greg Filsram in the October 2010 issue of Planning and "The Elusive Small-House Utobia" by Andrew Rice in the New York Times on October 15, 2010.

Figure 4-2. Age distribution, Harrisburg, Linn County and Oregon, 2010



Source: U.S. Census 2010

During the 2000's Harrisburg experienced changes in the age structure of its residents. Table 4-9 shows population by age for Harrisburg for 2000 and 2010. The Census data show that Harrisburg grew by 772 people between 2000 and 2010, which is a 28% increase. Harrisburg experienced an increase in population for every age group except children under the age of 5. The fastest growing groups were 45 to 64 years, 5 to 17 years, and 65 years and older.

A comparison of population increase by age between Harrisburg and Linn County shows that:

- Harrisburg grew faster than Linn County. The population of Harrisburg increased by 28% between 2000 and 2010 and Linn County experienced a 13% population increase.

- Harrisburg had a higher percentage increase in 5 to 17, 25 to 44, 45 to 64, and above 65. The age groups under 5 and 18 to 24 grew faster in Linn County.

Table 4-9. Population by Age, City of Harrisburg 2000 and 2010

	2000		2010		Change		
Age Group	Number	Percent	Number	Percent	Number	Percent	Share
Under 5	289	10%	280	8%	-9	-3%	-2%
5-17	589	21%	805	23%	216	37%	1%
18-24	258	9%	261	7%	3	1%	-2%
25-44	908	32%	1,050	29%	142	16%	-3%
45-64	505	18%	863	24%	358	71%	6%
65 and over	246	9%	308	9%	62	25%	0%
Total	2,795	100%	3,567	100%	772	28%	0%

Source: U.S. Census, 2000 and 2010

The American Community Survey of the U.S. Census collects information about migration patterns. Specifically, it asks households where their residence was in the past year. Table 4-10 shows place of residence in the past year for Harrisburg, Linn County, and Oregon between 2006 and 2010. The data show that residents of Harrisburg are less mobile than residents of Linn County or Oregon. Eighty-six percent of residents of Harrisburg lived in the same residence in the past year, compared with 83% in Linn County and 81% in Oregon. Residents of Harrisburg were more likely to have lived in a different county compared with residents of Linn County or Oregon.

Table 4-10. Place of residence in the past year, Harrisburg, Linn County, and Oregon, persons 1 year and over (2006-2010)

	Oregon		Linn County		Harrisburg	
Location	Persons	Percent	Persons	Percent	Persons	Percent
Population 1 year and older	3,715,857	100%	112,589	100%	3,419	100%
Same house 1 year ago	3,027,750	81%	93,346	83%	2,948	86%
Different house 1 year ago	688,107	19%	19,243	17%	471	14%
Same county	181,285	5%	5,286	5%	66	2%
Different county	256,579	7%	6,945	6%	385	11%
Same state	130,638	4%	4,883	4%	352	10%
Different state	125,941	3%	2,062	2%	33	1%

Source: American Community Survey, 2006-2010

Table 4-11 shows the number of persons of Hispanic or Latino origin for Harrisburg, Linn County, and Oregon for 2000 and 2010. The Census data show that Harrisburg has experienced growth in the Hispanic or Latino population. In 2010, Harrisburg's population was about 8% Hispanic or Latino, which is slightly higher than Linn County's average of 7.8% and lower than Oregon's average of 12%. Harrisburg's Hispanic or Latino population is growing faster than the overall population, which conforms to statewide trends. National demographic trends suggest this trend will continue in Harrisburg.

Table 4-11. Persons of Hispanic or Latino origin, Harrisburg, Linn County, and Oregon, 2000 and 2010

	Oregon	Linn County	Harrisburg
2000			
Total Population	3,421,399	103,069	2,795
Hispanic or Latino	275,314	4,514	159
Percent Hispanic or Latino	8.0%	4.4%	5.7%
2010			
Total Population	3,831,074	116,672	3,567
Hispanic or Latino	450,062	9,127	284
Percent Hispanic or Latino	11.7%	7.8%	8.0%
Change 2000-2010			
Hispanic or Latino	174,748	4,613	125
Percent Hispanic or Latino	63%	102%	79%

Source: U.S. Census, SF-1, 2000 and 2010

A clear linkage exists between demographic characteristics and housing choice. This is more typically referred to as the linkage between life cycle and housing choice and is documented in detail in several publications.[16] ECONorthwest used Public Use Microsample (PUMS) data from the 2000 Census to describe the relationship between selected demographic characteristics and housing choice.[17] This analysis identified several key relationships:

- Homeownership rates increase as income increases;
- Homeownership rates increase as age increases;
- Choice of single-family detached housing types increases as income increases;
- Renters are much more likely to choose multiple family housing types than single-family; and
- Income is a stronger determinate of tenure and housing type choice for all age categories.

Demographic trends in Harrisburg have been similar to state and national trends, with increases in people aged 45 to 64 and increases in Hispanic population. If these trends continue, along with continued growth in families with children, housing demand is likely to change in Harrisburg.

- Demand for multifamily housing is likely to increase with increase in low and moderate income residents to about 30% of dwellings. Demand for high amenity multifamily housing may increase as the baby boomers begin to downsize.

[16] This linkage is identified in the DLCD Workbook. It is described in detail in *Households and Housing: Choice and Outcomes in the Housing Market,* Clark and Dieleman, Center for Policy Research, 1996.

[17] ECO used the 5% Public Use Microsample (PUMS) data set for this analysis. A description of the PUMS data can be found at www.census.gov.

- Demand for single-family detached housing is likely to continue, especially from families with children and in-migrants.

- Demand for group quarters for retirees, such as an active retirement community, is likely to increase.

STEP 3. DETERMINE THE TYPES OF HOUSING THAT ARE LIKELY TO BE AFFORDABLE TO THE PROJECTED HOUSEHOLDS BASED ON HOUSEHOLD INCOME

Step three of the housing needs assessment results in an estimate of need for housing by income and housing type. This requires some estimate of the income distribution of future households in the community. ECO developed these estimates based on HUD section 8 program data for household income and fair market rents.

A typical standard used to determine housing affordability is that a household should pay no more than 30% of its total monthly household income for housing, including utilities. According to the U.S. Census, 466 households in Harrisburg—about 39%—paid more than 30% of their income for housing in 2010.

One way of exploring the issue of financial need is to review wage rates and housing affordability. Table 4-12 shows an analysis of affordable housing wage and rent gap for households in Harrisburg at different percentages of median family income (MFI). The data are for a typical family of four. The results indicate that a household must earn $13.27 an hour to afford a two-bedroom unit according to HUD's market rate rent estimate.

Table 4-12. Analysis of affordable housing wage and rent gap by HUD income categories, Linn County, 2012

Value	Minimum Wage	30% MFI	50% MFI	80% MFI	100% MFI	120% MFI
Annual Hours	2080	2080	2080	2080	2080	2080
Derived Hourly Wage	$8.80	$8.47	$14.11	$22.58	$28.22	$33.87
Annual Wage At Minimum Wage	$14,088	$17,610	$29,350	$46,960	$58,700	$70,440
Annual Affordable Rent	$4,226	$5,283	$8,805	$14,088	$17,610	$21,132
Monthly Affordable Rent	$352	$440	$734	$1,174	$1,468	$1,761
HUD Fair Market Rent (2 Bedroom)	$690	$690	$690	$690	$690	$690
Is HUD Fair Market Rent Higher Than The Monthly Affordable Rent	Yes	Yes	No	No	No	No
Rent Paid Monthly OVER 30% of Income	$338	$250	na	na	na	na
Rent Paid Annually OVER 30% of Income	$4,054	$2,997	na	na	na	na
Percentage of Income Paid OVER 30% of Income for Rent	29%	17%	na	na	na	na
Total Spent on Housing	59%	47%	28%	18%	14%	12%
For this area what would the "Affordable Housing Wage" be?	$13.27	$13.27	$13.27	$13.27	$13.27	$13.27
The Affordable Housing Wage Gap IS:	**$4.47**	**$4.80**	**na**	**na**	**na**	**na**

Source: HUD; analysis by ECONorthwest
MFI: Median family income

The total amount a household spends on housing is referred to as cost burden. Total housing expenses are generally defined to include payments and interest or rent, utilities, and insurance. HUD guidelines indicate that households paying

more than 30% of their income on housing experience "cost burden" and households paying more than 50% of their income on housing experience "severe cost burden." Using cost burden as an indicator is consistent with the Goal 10 requirement of providing housing that is affordable to all households in a community.

Table 4-13 shows housing costs as a percent of income by tenure for Harrisburg households in 2006-2010. The data show that about 39% of Harrisburg households experienced cost burden between 2006 and 2010. The rate was much higher for renters (50%) than for homeowners (33%). In comparison, 42% of Oregon's households are cost burdened and 38% of all households in the nation are cost burdened.

Table 4-13 Housing cost as a percentage of household income, Harrisburg 2006-2010

	Owners		Renters		Total	
Percent of Income	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Less than 20%	357	46%	124	30%	481	40%
20% - 24%	90	12%	68	16%	158	13%
25% - 29%	74	10%	14	3%	88	7%
30% - 34%	81	10%	45	11%	126	11%
35% or more	175	23%	165	40%	340	28%
Total	777	100%	416	100%	1,193	100%
Cost Burden	**256**	**33%**	**210**	**50%**	**466**	**39%**

Source: American Community Survey, 2006-2010

Table 4-14 shows a rough estimate of affordable housing cost and units by income levels for Harrisburg in 2012. Several points should be kept in mind when interpreting this data:

- Because all of the affordability guidelines are based on median family income, they provide a rough estimate of financial need and may mask other barriers to affordable housing such as move-in costs, competition for housing from higher income households, and availability of suitable units. They also ignore other important factors such as accumulated assets, purchasing housing as an investment, and the effect of down payments and interest rates on housing affordability.

- Households compete for housing in the marketplace. In other words, affordable housing units are not necessarily available to low income households. For example, if an area has a total of 50 dwelling units that are affordable to households earning 30% of median family income, 50% of those units may already be occupied by households that earn more than 30% of median family income.

The data in Table 4-14 indicate that in 2012:

- More than 10% of Harrisburg households could not afford a studio apartment according to HUD's estimate of $457 fair market rent in 2012.

- About 20% of Harrisburg households could not afford a two-bedroom apartment according to HUD's estimate of $690 fair market rent in 2012.

- There was a surplus of more than 100 units of housing that is affordable for households that earn less than the median family income.

- A household earning a median family income ($52,212) could afford a home valued up to $156,636 in 2012.

Table 4-14. Rough estimate of housing affordability, Harrisburg, 2012

Income Level	Number of HH	Percent	Affordable Monthly Housing Cost	Crude Estimate of Affordable Purchase Owner-Occupied Unit	Est. Number of Owner Units	Est. Number of Renter Units	Surplus (Deficit)	Notes
Less than $10,000	47	3.9%	$0 to $250	$0 to $25,000	89	5	47	
$10,000 to $14,999	75	6.2%	$250 to $375	$25,000 to $37,000	16	51	(8)	
								HUD FMR Studio: $457
$15,000 to $24,999	119	9.9%	$375 to $625	$37,500 to $62,500	19	160	60	1 bdrm:$553
$25,000 to $34,999	161	13.4%	$625 to $875	$62,500 to $87,500	5	123	(33)	HUD FMR 2 bdrm: $690
								HUD FMR 3 bdrm: $952
$35,000 to $49,999	188	15.6%	$875 to $1,250	$87,500 to $125,000	66	79	(43)	4 bdrm: $1,178
$50,000 to $74,999	297	24.7%	$1,250 to $1,875	$125,000 to $187,500	262	0	(35)	
Harrisburg median (2010): $52,212			$1,305	$156,636				
$75,000 to $99,999	178	14.8%	$1,875 to $2,450	$187,500 to $245,000	240	0	62	
$100,000 to $149,999	104	8.6%	$2,450 to $3,750	$245,000 to $375,000	71	0	(33)	
$150,000 or more	34	2.8%	More than $3,750	More than $375,000	16	0	(18)	
Total	1,203	100.0%			785	418	0	

Source: U.S. Census, American Community Survey, 2006-2010,
U.S. Department of Housing and Urban Development, and Oregon Housing & Community Services. *Housing Strategies Workbook: Your Guide to Local Affordable Housing Initiatives*, 1993
Notes FMR- Fair Market Rent

As a final step in the housing affordability analysis, ECO performed a rough correlation of income with needed housing types as defined by ORS 195.303. This analysis is also consistent with guidance provided in the Workbook.[18] Table 4-15 shows ECO's evaluation for market segments, incomes, and financially attainable housing products. We use the HUD income guidelines as the market segments and Census data for the income distribution. The table provides an estimate of financially attainable housing types by income and tenure. Households in the upper-middle and high-income segments will be able to afford new housing.

[18] Specifically, Step 4, page 29 and the figure on page C-11.

Table 4-15. Financially attainable housing type by income range, 2006-2010

Market Segment by Income	Income Range	Number of households	Percent of Households	Financially Attainable Products: Owner-occupied	Financially Attainable Products: Renter-occupied	
High (120% or more of MFI)	$70,440 or more	358	30%	All housing types; higher prices	All housing types; higher prices	↑ Primarily New Housing
Upper Middle (80%-120% of MFI)	$46,960 to $70,440	292	24%	All housing types; lower values	All housing types; lower values	
Lower Middle (50%-80% of MFI)	$29,350 to $46,960	260	22%	Manufactured on lots; single-family attached; duplexes	Single-family attached; detatched; manufactured on lots; apartments	Primarily Used Housing ↓
Lower (30%-50% of less of MFI)	$17,610 to $29,350	143	12%	Manufactured in parks	Apartments; manufactured in parks; duplexes	
Very Low (Less than 30% of MFI)	Less than $17,610	150	12%	None	Apartments; new and used government assisted housing	

Source: Estimates by ECONorthwest

STEP 4: ESTIMATE THE NUMBER OF ADDITIONAL NEEDED UNITS BY STRUCTURE TYPE

Step four of the housing needs assessment results in an estimate of need for housing by income and housing type. This requires some estimate of the income distribution of future households in the community. ECO developed these estimates based on (1) secondary data from the Census, and (2) analysis by ECONorthwest.

The next step in the analysis is to relate income levels to tenure and structure type. Table 4-3 showed tenure by structure type from the 2006-2010 American Community Survey. Table 4-16 shows an estimate of needed housing by structure type and tenure for the 2013-2033 planning period. The housing needs analysis assumes that the housing mix will change over the 20 year planning period, with the mix of new housing being 70% of single-family detached units and 30% of attached units. The housing needs analysis assumes that homeownership rates will not change substantially, resulting in owner-occupancy of 69% of new housing and renter-occupancy of 31% of new housing.

Table 4-16. Estimate of needed dwelling units by type and tenure, Harrisburg, 2013-2033

	Owner-Occupied		Renter-Occupied		Total	
Structure Type	New DU by Type	Percent by Type	New DU by Type	Percent by Type	New DU by Type	Percent of Total DU
Single-family detached	543	90%	60	10%	603	55%
Manufactured	123	75%	41	25%	165	15%
Condo/Townhomes	66	50%	66	50%	132	12%
Multifamily	20	10%	178	90%	197	18%
Total dwelling units	**752**		**345**		**1,097**	100%
Total Tenure		**69%**		**31%**		

Source: ECONorthwest

STEP 5: DETERMINE THE NEEDED DENSITY RANGES FOR EACH PLAN DESIGNATION AND THE AVERAGE NEEDED NET DENSITY FOR ALL STRUCTURE TYPES

Harrisburg adopted a High Density Residential Zone (R-3) into Chapter 18 (Zoning and Land Use) of its Municipal Code with Ordinance #909 on February 23, 2013. In addition, ECONorthwest is developing a Comprehensive Plan map, as part of the update to the City's land use policy documents. Changes to the policy documents that guide residential development in the City include:

- **Single-Family Residential Zone (R-1).** The City's Comprehensive Plan Map will show that the R-1 zone is equivalent to the Comprehensive Plan Designation for Low Density Residential (LDR). The City is making changes to the zoning ordinance to set a minimum density of two dwelling units per net acre.
- **Medium Density Residential Zone (R-2).** The City's Comprehensive Plan Map will show that the R-2 zone is equivalent to the Comprehensive Plan Designation for Medium Density Residential (MDR). The City is changing the zoning ordinance to: (1) clarify that multifamily housing is allowed outright in R-2 and (2) set a density range of two to 12 units per net acre.
- **High Density Residential Zone (R-3).** The City's Comprehensive Plan Map will show that the R-3 zone is equivalent to the Comprehensive Plan Designation for High Density Residential (HDR). This is a new zone and plan designation for the City. The housing types that the R-3 zone allow outright are multifamily and manufactured dwelling parks. The density range for R-3 is 12 to 18 dwelling units per net acre.

The analysis in Tables 4-17 and 4-18 reflect these policy changes.

Table 4-17 shows the forecast of new dwelling units and land need by type. The historical residential mix was 60% single-family, 20% manufactured (mobile home), and 20% multiple family. The needs analysis forecasts a higher level of multifamily housing production and shifts the housing split to 70% single-family types and 30% multifamily types.[19]

The needs analysis also forecasts increasing densities for all types of housing, consistent with changes to the City's zoning ordinance. These increases are based on national, state, and regional trends of building on smaller lots and increased need for multifamily housing.

[19] Manufactured dwellings are a permitted use in all residential zones that allow 10 or fewer dwellings per net buildable acre. As a result, Harrisburg is not required to estimate the need for manufactured dwellings on individual lots per OAR 660-024-0040 (8) (c).

The forecast indicates that Harrisburg will need about 158 net residential acres, or about 202 gross residential acres to accommodate new housing between 2013 and 2033.[20]

Table 4-17. Forecast of new dwelling units and land need by type, Harrisburg, 2013-2033

Housing Type	New DU	Percent	Density (DU/net res ac)	Net Res. Acres	Net to Gross Factor	Gross Res. Acres	Density (DU/gross res ac)
Single-family types							
Single-family detached	603	55%	6.0	101	25%	134	4.5
Manufactured	165	15%	6.0	27	20%	34	4.8
Subtotal	768	70%	6.0	128		168	4.6
Multi-family							
Condo/Townhomes	132	12%	8.0	16	15%	19	6.8
Multifamily	197	18%	15.0	13	10%	15	13.5
Subtotal	329	30%	11.1	30		34	9.7
Total	**1,097**	**100%**	**7.0**	**158**		**202**	**5.4**

Source: ECONorthwest

[20] A *Gross Vacant Acre* is an acre of vacant land before land has been dedicated for public right-of-way, private streets, or public utility easements. For example, a standard assumption is that about 20% of land in a subdivision is used for streets and utilities: if so, then a gross vacant acre will yield only about 35,000 sq. ft. (80% of a full acre) for lots.

A *Net Vacant Acre* is an acre of vacant land after land has been dedicated for public right-of-way, private streets, or utility easements. A net vacant acre has 43,560 square feet available for construction, because no further street or utility dedications are required: all the land is in lots.

Table 4-18 shows the allocation of needed dwelling and land to residential plan designations for 2013 to 2033.

- Low Density Residential (LDR) will accommodate 670 dwellings on 148 gross acres of land, at a density of 4.5 dwelling units per gross acre.
- Medium Density Residential (MDR) will accommodate 285 dwellings on 45 gross acres of land, at a density of 6.4 dwelling units per gross acre.
- High Density Residential (HDR) will accommodate 142 dwellings on 10 gross acres of land, at a density of 14.4 dwelling units per gross acre.

Table 4-18. Allocation of new dwelling units and land to residential plan designations, Harrisburg, 2013-2033

	Plan Designation							
	Low Density Residential		Medium Density Residential		High Density Residential		Total	
Housing Type	**DU**	**Gross Ac**	**DU**	**Gross Ac**	**DU**	**Gross Ac**	**DU**	**Gross Ac**
Single-family detached	548	123	55	10	0	0	603	134
Manufactured	89	19	65	14	11	1	165	34
Condo/Townhomes	33	5	99	15	0	0	132	19
Multifamily	0	0	66	6	131	9	197	15
Total	**670**	**148**	**285**	**45**	**142**	**10**	**1,097**	**202**
Net density (du per acre)		**5.8**		**8.2**		**18.5**		**7.0**
Gross density (du per acre)		**4.5**		**6.4**		**14.4**		**5.4**
Percent of Acres and Units								
Single-family detached	50%	61%	5%	5%	0%	0%	55%	66%
Manufactured	8%	10%	6%	7%	1%	1%	15%	17%
Condo/Townhomes	3%	2%	9%	7%	0%	0%	12%	10%
Multifamily	0%	0%	6%	3%	12%	4%	18%	7%
Total	**61%**	**73%**	**26%**	**22%**	**13%**	**5%**	**100%**	**100%**

Source: ECONorthwest

NEED FOR GOVERNMENT-ASSISTED HOUSING

Table 4-14 gives an indication of need for government assisted housing. About 10% of households earn less than $15,000 and are unable to afford any type of housing based on HUD's estimate of fair market rent for a studio apartment ($457 per month).

Households earning between $15,000 and $35,000 may also have need for government assisted housing, especially larger households. For example, a household earning about 50% of MFI ($29,350) can afford a two-bedroom house at HUD's estimate of fair market rent ($690 per month). If the household has more than four members, then a two-bedroom dwelling will be crowded and the household might have a need for government assisted housing.

The households most likely to qualify and need government assisted housing are those earning 30% or less than the County's median family income. About 12% of Harrisburg's households have income of less than 30% of the County median family income (earning less than $17,610 annually). In addition, about 12% of Harrisburg's population earn between 30% to 50% of the County median

family income (earning up to $29,350 annually), some of whom would qualify for government-assisted housing.

Harrisburg has three affordable regulated housing projects: Somerville Place Apartments (28 units), Lasalle Court (6 units), and Fountain Court Apartments (5 units).[21] Harrisburg does not build government-assisted affordable housing. This type of housing is generally built by third-party affordable home builders or other external groups. The City does not restrict development of government-assisted housing on land designated for residential development. The City will work with organizations to develop government-assisted housing. Thus, the City concludes that the need to plan for government-assisted housing is met.

NEED FOR MANUFACTURED HOUSING IN PARKS

Manufactured homes are and will be an important source of affordable housing within Harrisburg in the future. They provide a form of homeownership that can be made available to low and moderate income households. Cities are required to plan for manufactured homes—both on lots and in parks (ORS 197.475-492).

Generally, manufactured homes in parks are owned by the occupants who pay rent for the space. Monthly housing costs are typically lower for a homeowner in a manufactured home park for several reasons, including the fact that property taxes levied on the value of the land are paid by the property owner rather than the manufactured homeowner. The value of the manufactured home generally does not appreciate in the way a conventional home would, however. Manufactured homeowners in parks are also subject to the mercy of the property owner in terms of rent rates and increases. It is generally not within the means of a manufactured homeowner to relocate a manufactured home to escape rent increases. Living in a park is desirable to some because it can provide a more secure community with on-site managers and amenities, such as laundry and recreation facilities.

OAR 197.480(4) requires cities to inventory the mobile home or manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial or high density residential development. Manufactured housing parks are an outright permitted use in Harrisburg's R-2 and R-3 zones.

According to Census data, the City had 210 manufactured homes in 2000 and 235 manufactured homes in 2006-2010, an increase of 25 dwellings. According to the Oregon Housing and Community Services' Manufactured Dwelling Park Directory,[22] Harrisburg has three manufactured dwelling parks:

- Springbrook Mobile Home Park has 104 spaces, with 9 vacant spaces
- Harrisburg Mobile Home Park has 44 spaces with 9 vacant spaces

[21] Oregon Housing and Community Service's *Oregon Affordable Housing Inventory* (OAHI), 2012

[22] Oregon Housing and Community Services, Oregon Manufactured Dwelling Park Directory, http://o.hcs.state.or.us/MDPCRParks/ParkDirQuery.jsp

- Diamond Hill RV and Mobile Home Park has 8 spaces, with no vacancies

ORS 197.480(2) requires Harrisburg to project need for mobile home or manufactured dwelling parks based on: (1) population projections, (2) household income levels, (3) housing market trends, and (4) an inventory of manufactured dwelling parks sited in areas planned and zoned or generally used for commercial, industrial or high density residential.

- Table 4-8 shows that Harrisburg will grow by 3,001 persons in households or 1,097 dwelling units over the 2013 to 2033 period. This projection is based on the City's adopted population projection.
- Analysis of housing affordability (in Table 4-15) shows that about one-quarter of Harrisburg's new households will be low income, earning 50% or less of the County's median family income. One type of housing affordable to these households is manufactured housing.
- The Census and OHCS data show a different number of manufactured dwellings, 235 in the Census data and 156 in the OHCS data. Manufactured housing accounts for about 20% of Harrisburg's current housing stock.
- National, state, and regional trends during the 2000 to 2010 period showed that manufactured housing parks were closing, rather than being created. For example, over that eight year period, Oregon had a statewide decrease of 25% in the number of manufactured home parks between 2003 and 2010. Anecdotal evidence suggests that the trend in closing and redeveloping manufactured home parks has slowed (or even stopped) between 2008 and 2013. It is unclear, however, whether the trend to closure and redevelopment of manufactured housing parks will continue after the housing market recovers from the current downturn.

Given the longer-term trend for closing manufactured housing parks, future demand for new manufactured home parks may be low, compared to the existing supply of manufactured housing. Table 4-15 shows that the households most likely to live in manufactured homes in parks are those with incomes $17,600 and $29,350 (30 to 50% of median family income). Assuming that 12% of Harrisburg's household are in this income category (132 households) and that about half of these households choose to live in manufactured dwellings in parks, the City may need one or two new manufactured housing parks with a total of about 48 new spaces (once the 18 vacant spaces in existing parks fill), requiring about 10 gross acres of land. This land need is included in the land need for manufactured housing shown in Table 4-17.

Chapter 5

Harrisburg Economic Opportunities Analysis

This chapter presents an economic opportunities analysis (EOA) for the City of Harrisburg consistent with the requirements of statewide planning Goal 9 and the Goal 9 administrative rule (OAR 660-009). Chapter 2 presented a 20- and 50-year forecast of employment for Harrisburg; this chapter uses the employment forecast to develop a forecast of demand for employment land. This chapter is intended to provide technical information that will help determine whether the City has an adequate inventory of commercial and industrial sites within its urban growth boundary (UGB) to accommodate employment growth over a 20-year planning period.

This chapter includes the following components of an EOA, as required or suggested in the Goal 9 administrative rule (OAR 660-009):

- A review of national, state, and local economic trends to identify the categories of industrial and commercial uses that can reasonably be expected to locate in the planning area,
- Identification of site requirements for industrial and commercial uses that might expand or locate in the planning area,
- An inventory of buildable land available for industrial and other employment uses in the long-term (20 years) and short-term (1 year).

The assessment of community economic development potential must also consider the planning area's economic advantages and disadvantages of attracting new or expanded development. Relevant economic advantages and disadvantages include:

- Location, size and buying power of markets;
- Availability of transportation facilities for access and freight mobility;
- Public facilities and public services;
- Labor market factors;
- Access to suppliers and utilities;
- Necessary support services;
- Limits on development due to federal and state environmental protection laws; and
- Educational and technical training programs.

OAR 660-009-0025 requires plans to address the long-term supply of land (20 years), short-term supply of serviceable sites (1 years), and sites for uses with

special siting requirements. This requirement necessitates the analysis in this chapter to take a 20-year perspective.

FRAMEWORK FOR ECONOMIC DEVELOPMENT IN OREGON

The content of this report is designed to meet the requirements of Oregon Statewide Planning Goal 9 and the administrative rule that implements Goal 9 (OAR 660-009). The analysis in this report is designed to conform to the requirements for an Economic Opportunities Analysis in OAR 660-009.

1. *Economic Opportunities Analysis (OAR 660-009-0015).* The Economic Opportunities Analysis (EOA) requires communities to identify the major categories of industrial or other employment uses that could reasonably be expected to locate or expand in the planning area based on information about national, state, regional, county or local trends; identify the number of sites by type reasonably expected to be needed to accommodate the expected employment growth based on the site characteristics typical of expected uses; include an inventory of vacant and developed lands within the planning area designated for industrial or other employment use; and estimate the types and amounts of industrial and other employment uses likely to occur in the planning area. Local governments are also encouraged to assess community economic development potential through a visioning or some other public input based process in conjunction with state agencies.

2. *Industrial and commercial development policies (OAR 660-009-0020).* Cities with a population over 2,500 are required to develop commercial and industrial development policies based on the EOA. Local comprehensive plans must state the overall objectives for economic development in the planning area and identify categories or particular types of industrial and other employment uses desired by the community. Local comprehensive plans must also include policies that commit the city or county to designate an adequate number of employment sites of suitable sizes, types and locations. The plan must also include policies to provide necessary public facilities and transportation facilities for the planning area.

3. *Designation of lands for industrial and commercial uses (OAR 660-009-0025.* Cities and counties must adopt measures adequate to implement policies adopted pursuant to OAR 660-009-0020. Appropriate implementing measures include amendments to plan and zone map designations, land use regulations, public facility plans, and transportation system plans. More specifically, plans must identify the approximate number, acreage and site characteristics of sites needed to accommodate industrial and other employment uses to implement plan policies, and must designate serviceable land suitable to meet identified site needs.

In summary, this report is an Economic Opportunities Analysis, the first key element required by Goal 9. This EOA also includes an employment forecast that leads to identification of needed development sites, and an inventory of commercial and industrial land in Harrisburg.

LONG-RUN NATIONAL AND STATE TRENDS AFFECTING GROWTH IN HARRISBURG

NATIONAL TRENDS

Economic development in Harrisburg over the next twenty will occur in the context of long-run national trends. The most important of these trends includes:

- **The aging of the baby boom generation, accompanied by increases in life expectancy.** The number of people age 65 and older will more than double by 2050, while the number of working age people under age 65 with grow only 19 percent. The economic effects of this demographic change include a slowing of the growth of the labor force, an increase in the demand for healthcare services, and an increase in the percent of the federal budget dedicated to Social Security and Medicare.[23]

  Baby boomers are expecting to work longer than previous generations. An increasing proportion of people in their early to mid-50s expect to work full-time after age 65. In 2004, about 40% of these workers expect to work full-time after age 65, compared with about 30% in 1992.[24] This trend can be seen in Oregon, where the share of workers 65 years and older grew from 2.9% of the workforce in 2000 to 4.1% of the workforce in 2010, an increase of 41%. Over the same ten-year period, workers 45 to 64 years increased by 15%.[25]

- **Need for replacement workers.** The need for workers to replace retiring baby boomers will outpace job growth. According to the Bureau of Labor Statistics, net replacement needs will be 33.7 million job openings over the 2010-2020 period, compared with growth in employment of 21.1 million jobs. The occupations with the greatest need for replacement workers includes: retail sales, food service, registered nurses, office workers and teachers.[26]

- **Increases in labor productivity.** Productivity, as measured by output per hour, increased over the 1995 to 2005 period. The largest increases in productivity occurred over the 1995 to 2000 period, led by industries that produced, sold, or intensively used information technology products. Productivity increased over the 2000 to 2005 period but at a slower rate than during the later half of the 1990's. The sectors that experienced the

[23] The Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, 2011, *The 2011 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, May 13, 2011.

[24] "The Health and Retirement Study," 2007, National Institute of Aging, National Institutes of Health, U.S. Department of Health and Human Services.

[25] Analysis of 2000 Decennial Census data and 2010 U.S. Census American Community Survey, 1-Year Estimates for the table Sex by Age by Employment Status for the Population 16 Years and Over

[26] "Occupational Employment Projections to 2010-2020," Bureau of Labor Statistics, February 2012.

largest productivity increases over the 2000 to 2005 period were: Information, Manufacturing, Retail Trade, and Wholesale Trade. Productivity in mining decreased over the five-year period. [27]

- **Continued shift of employment from manufacturing and resource-intensive industries to the service-oriented sectors of the economy.** Increased worker productivity and the international outsourcing of routine tasks lead to declines in employment in the major goods-producing industries. Projections from the Bureau of Labor Statistics indicate that U.S. employment growth will continue to be strongest in healthcare and social assistance, professional and business services, and other service industries. Construction employment will also grow but manufacturing employment will decline.[28]

- **The importance of high-quality natural resources.** The relationship between natural resources and local economies has changed as the economy has shifted away from resource extraction. High-quality natural resources continue to be important in some states, especially in the Western U.S. Increases in the population and in households' incomes, plus changes in tastes and preferences, have dramatically increased demands for outdoor recreation, scenic vistas, clean water, and other resource-related amenities. Such amenities contribute to a region's quality of life and play an important role in attracting both households and firms.[29]

- **The growing importance of education as a determinant of wages and household income.** According to the Bureau of Labor Statistics, a majority of the fastest growing occupations will require an academic degree, and on average they will yield higher incomes than occupations that do not require an academic degree. The fastest growing occupations requiring an academic degree will be: health care service, computer programing, management and business services, college teachers, and architectural and engineering services. Occupations that do not require an academic degree (e.g., retail sales person, food preparation workers, and home care aides) will grow, accounting for more than two-thirds of all new jobs by 2020. These occupations typically have lower pay than occupations requiring an academic degree.[30]

  The national median income in 2010 was about $40,700. Workers without a high school diploma earned $17,600 less than the median income and workers with a high school diploma earned $8,100 less than median

[27] Corey Holman, Bobbie Joyeaux, and Christopher Kask, "Labor Productivity trends since 2000, by sector and industry," Bureau of Labor Statistics *Monthly Labor Review*, February 2008.

[28] "Occupational Employment Projections to 2010-2020," Bureau of Labor Statistics, February 2012.

[29] For a more thorough discussion of relevant research, *see,* for example, Power, T.M. and R.N. Barrett. 2001. *Post-Cowboy Economics: Pay and Prosperity in the New American West*. Island Press, and Kim, K.-K., D.W. Marcouiller, and S.C. Deller. 2005. "Natural Amenities and Rural Development: Understanding Spatial and Distributional Attributes." *Growth and Change* 36 (2): 273-297.

[30] "Occupational Employment Projections to 2010-2020," Bureau of Labor Statistics, February 2012.

income. Workers with some college earned slightly less than median and workers with a bachelor's degree earned $13,300 more than median. Workers in Oregon experience the same patterns as the nation but pay is generally lower in Oregon than the national average.[31]

- **Continued increase in demand for energy.** Energy prices are forecast to remain at relatively high levels, with continued, gradual increased prices over the planning period. Output from the most energy-intensive industries is expected to decline, but growth in the population and in the economy is expected to increase the total amount of energy demanded. Energy sources are expected to diversify and the energy efficiency of automobiles, appliances, and production processes are projected to increase. Despite increases in energy efficiency and decreases in demand for energy by some industries, demand for energy is expected to increase over the 2012 to 2035 period because of increases in population and economic activity. Growth will remain slow early in the planning period, as the economy continues a gradual recovery from the recent recession.[32]
- **Impact of rising energy prices on commuting patterns.** Energy prices may continue to be high (relative to historic energy prices) or continue to rise over the planning period.[33] The increases in energy prices may impact willingness to commute long distances.
- **Possible effect of rising transportation and fuel prices on globalization.** Increases in globalization are related to the cost of transportation: When transportation is less expensive, companies move production to areas with lower labor costs. Oregon has benefited from this trend, with domestic outsourcing of call centers and other back office functions. In other cases, businesses in Oregon (and the nation) have "off-shored" employment to other countries, most frequently manufacturing jobs.

  Increases in either transportation or labor costs may impact globalization. When the wage gap between two areas is larger than the additional costs of transporting goods, companies are likely to shift operations to an area with lower labor costs. Conversely, when transportation costs increase, companies may have incentive to relocate to be closer to suppliers or consumers.

  This effect occurs incrementally over time and it is difficult to measure the impact in the short-term. If fuel prices and transportation costs decrease over the planning period, businesses may not make the decision to relocate

[31] Bureau of Labor Statistics, Employment Projections, May 2011. http://www.bls.gov/emp/ep_chart_001.htm

[32] Energy Information Administration, 2012, *Annual Energy Outlook 2012 with Projections to 2035,* U.S. Department of Energy, DOE/EIA-0383(2012), April.

[33] Energy Information Administration, 2012, *Annual Energy Outlook 2012 with Projections to 2035,* U.S. Department of Energy, DOE/EIA-0383(2012), April

(based on transportation costs) because the benefits of being closer to suppliers and markets may not exceed the costs of relocation.

- **Potential impacts of global climate change.** There is growing support for, but not a political consensus about whether global climate change is occurring as a result of greenhouse gas emissions. There is a lot of uncertainty surrounding global climate change, including the pace of climate change and the ecological and economic impacts of climate changes. Climate change may result in the following changes in the Pacific Northwest: (1) increase in average temperatures, (2) shift in the type of precipitation, with more winter precipitation falling as rain, (3) decrease in mountain snow-pack and earlier spring thaw, (4) increases in carbon dioxide in the air, and (5) increases in sea-level.[34] Assuming that global climate change is occurring and will continue to occur over the next 20-years, a few broad, potential economic impacts for the nation and Pacific Northwest include:[35]
    - *Potential impact on agriculture and forestry.* Climate change may impact Oregon's agriculture through changes in: growing season, temperature ranges, and water availability.[36] Climate change may impact Oregon's forestry through increase in wildfires, decrease in the rate of tree growth, change in mix of tree species, and increases in disease and pests that damage trees.[37]
    - *Potential impact on tourism and recreation.* Impacts on tourism and recreation may range from: (1) decreases in snow-based recreation if snow-pack in the Cascades decreases, (2) negative impacts to tourism along the Oregon Coast as a result of damage and beach erosion from rising sea levels,[38] (3) negative impacts on availability of water summer river recreation (e.g., river rafting or sports fishing) as a result of lower summer river flows, and (4) negative impacts on the availability of water for domestic and business uses.
    - *Potential changes in government policies*. There is currently no substantial national public policy response to global climate change. States and regional associations of states are in the process

[34] "Economic Impacts of Climate Change on Forest Resources in Oregon: A Preliminary Analysis," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, May 2007.

[35] The issue of global climate change is complex and there is a substantial amount of uncertainty about climate change. This discussion is not intended to describe all potential impacts of climate change but to present a few ways that climate change may impact the economy of cities in Oregon and the Pacific Northwest.

[36] "The Economic Impacts of Climate Change in Oregon: A preliminary Assessment," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, October 2005.

[37] "Economic Impacts of Climate Change on Forest Resources in Oregon: A Preliminary Analysis," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, May 2007.

[38] "The Economic Impacts of Climate Change in Oregon: A preliminary Assessment," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, October 2005.

of formulating policy responses to address climate change including: increasing renewable energy generation, selling agricultural carbon sequestration credits, and encouraging energy efficiency.[39] Without clear indications of the government policies that may be adopted, it is not possible to assess the impact of government policies on the economy.

Global climate change may offer economic opportunities. The search for alternative energy sources may result in increased investment and employment in "green" energy sources, such as wind, solar, and biofuels. Firms in the Northwest are well positioned to lead efforts on climate change mitigation, which may result in export products, such as renewable technologies or green manufacturing. [40]

Short-term national trends will also affect economic growth in the region, but these trends are difficult to predict. At times these trends may run counter to the long-term trends described above. A recent example is the downturn in economic activity in 2007 following declines in the housing market and the mortgage banking crisis. The result of the economic downturn has been a decrease in employment related to the housing market, such as construction and real estate. Employment in these industries will recover as the housing market recovers and will continue to play a significant role in the national, state, and local economy over the long run. This report takes a long-run perspective on economic conditions (as the Goal 9 requirements intend) and does not attempt to predict the impacts of short-run national business cycles on employment or economic activity.

STATE AND REGIONAL TRENDS

State and regional trends will also affect economic growth in Harrisburg over the next twenty years. The most important of these trends includes: population changes, continued in-migration from other states, distribution of population and employment across the State, shift from natural resource to high-tech industries, and importance of small businesses to Oregon's economy.

- **Continued in-migration from other states.** Oregon will continue to experience in-migration from other states, especially California and Washington. According to a U.S. Census study, Oregon had net interstate in-migration (more people moved *to* Oregon than moved *from* Oregon) during the period 1990-2010. Oregon had an annual average of 26,290 more in-migrants than out-migrants during the period 1990-2000. The

[39] Pew Center on Global Climate Change website: http://www.pewclimate.org/what_s_being_done/in_the_states/

[40] "The Economic Impacts of Climate Change in Oregon: A preliminary Assessment," Climate Leadership Initiative, Institute for Sustainable Environment, University of Oregon, October 2005

annual average dropped to 9,800 during the period 2000-2010.[41] Most in-migrants come from California, Washington, and other western states.[42]

- **Concentration of population and employment in the Willamette Valley.** Nearly 70% of Oregon's population lives in the Willamette Valley. About 10% of Oregon's population lives in Southern Oregon, 9% lives in Central Oregon, and 6% live in Coastal counties. The Oregon Office of Economic Analysis (OEA) forecasts that population will continue to be concentrated in the Willamette Valley through 2040, increasing slightly to 71% of Oregon's population.

  Employment growth generally follows the same trend as population growth. Employment growth varies between regions even more, however, as employment reacts more quickly to changing economic conditions. Total employment increased in each of the state's regions over the period 1970-2006 but over 70% of Oregon's employment was located in the Willamette Valley.

- **Change in the type of the industries in Oregon.** As Oregon has transitioned away from natural resource-based industries, the composition of Oregon's employment has shifted from natural resource based manufacturing and other industries to service industries. The share of Oregon's total employment in Service industries increased from its 1970s average of 19% to 45% in 2011, while employment in Manufacturing declined from an average of 18% in the 1970s to an average of 10% in 2011.

- **Shift in manufacturing from natural resource-based to high-tech and other manufacturing industries.** Since 1970, Oregon started to transition away from reliance on traditional resource-extraction industries. A significant indicator of this transition is the shift within Oregon's manufacturing sector, with a decline in the level of employment in the Lumber & Wood Products industry and concurrent growth of employment in other manufacturing industries, such as high-technology manufacturing (Industrial Machinery, Electronic Equipment, and Instruments), Transportation Equipment manufacturing, and Printing and Publishing. [43]

- **Continued importance of manufacturing to Oregon's economy.** Oregon's exports totaled $19.4 billion in 2008, nearly doubling since

[41] Portland State University Population Research Center, Population Report, Components of Population Change for 1990-2000 and 2000-2010. http://pdx.edu/prc/annual-oregon-population-report

[42] Oregon Department of Motor Vehicles collects data about state-of-origin for drivers licenses surrendered by people applying for an Oregon drivers license from out-of-state. Between 2000 and 2007, about one-third of licenses surrendered were from California, 15% to 18% were surrendered from Washington, and about 17% to 19% were from the following states: Arizona, Idaho, Nevada, Colorado, and Texas.

[43] Although Oregon's economy has diversified since the 1970's, natural resource-based manufacturing accounts for more than nearly 40% of employment in manufacturing in Oregon in 2010, with the most employment in Wood Product and Food manufacturing.

2000. Oregon's largest export industries were computer and electronic products and agricultural products, account for nearly 60% of Oregon's exports. Manufacturing employment is concentrated in five counties in the Willamette Valley or Portland area: Washington, Multnomah, Lane, Clackamas, and Marion Counties.[44]

- **Small businesses continue to account for over 50% of employment in Oregon.** Small business, with 100 or fewer employees, account for 51% of private sector employment in Oregon in 2009, up from about 50.2% of private employment in 2000 and down from 52.5% in 1996. Workers of small businesses typically had lower wages than the state average, with average wages of $33,977 compared to the statewide average of for large businesses about $45,814 in 2009.[45]

The changing composition of employment has not affected all regions of Oregon evenly. Growth in high-tech and Services employment has been concentrated in urban areas of the Willamette Valley and Southern Oregon, particularly in Washington, Benton, and Josephine Counties. The brunt of the decline in Lumber & Wood Products employment was felt in rural Oregon, where these jobs represented a larger share of total employment and an even larger share of high-paying jobs than in urban areas.

[44] Business Oregon, *"Economic Data Packet"*

[45] Business Oregon, *"Economic Data Packet"*

OVERVIEW OF ECONOMIC CONDITIONS IN LINN COUNTY AND HARRISBURG

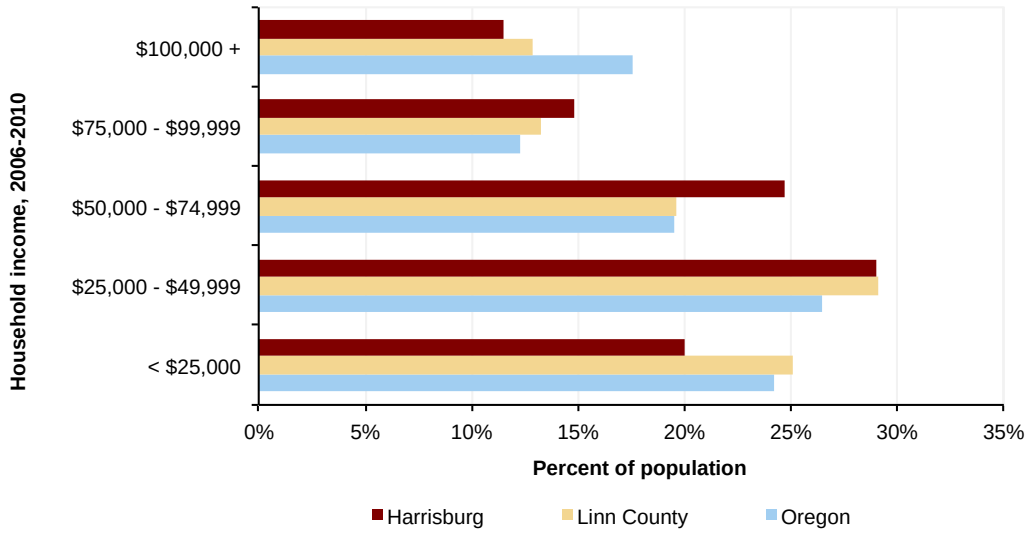
Future economic growth in Harrisburg will be affected in part by demographic and economic trends in the city and surrounding region. A review of historical demographic and economic trends provides a context for establishing a reasonable expectation of future growth in Harrisburg. In addition, the relationship between demographic and economic indicators such as population and employment can help us form judgments about future trends and resulting economic conditions. This section addresses the following trends in Harrisburg: personal income, employment, and business activity. Chapter 2 includes a discussion of historic population trends in Harrisburg and Linn County.

PERSONAL INCOME

The median household income in Harrisburg in 2006-2010 was approximately $52,212, which was higher than Oregon's median household income of $49,260. Harrisburg's median household income was also higher than Linn County's, which was $45,832.

Figure 5-1 shows the distribution of household income of Oregon, Linn County, and Harrisburg for the 2006 to 2010 period. Figure 5-1 shows that Harrisburg had a smaller share of households with incomes of less than $25,000 or more than $100,000 than the State or County. Harrisburg had a larger share of households with income between $25,000 and $100,000 than the State or County. More than one-quarter of households in all three areas had household income between $25,000 to $50,000. Harrisburg had a larger share of households with income between $50,000 to $75,000 (25%) than the State or County (20% each).

Figure 5-1. Distribution of household income of Oregon, Linn County, and Harrisburg, 2006-2010

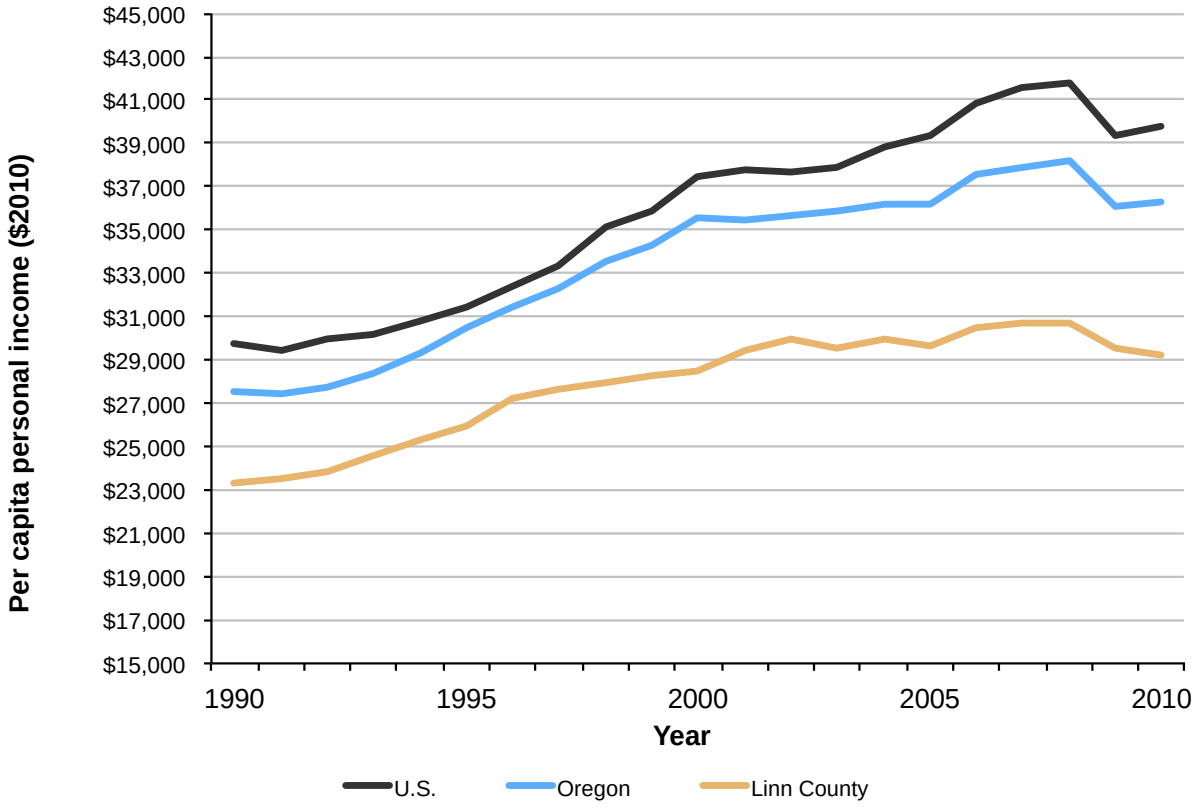


Source: American Community Survey, 2006-2010

Figure 5-2 shows the change in per capita personal income for the U.S., Oregon, and Linn County between 1990 and 2010 (in constant 2010 dollars). Oregon's per capita personal income was consistently lower than the U.S. average between 1990 and 2010. While the gap between the Oregon and US average narrowed in the mid-1990s, it widened again starting in the late 1990s through 2010.

Linn County's personal income over the 20-year period has been consistently lower than Oregon's personal income. In 2010, per capita personal income in Linn County was approximately 80% of Oregon's per capital personal income and 73% of the U.S. per capital income. The gap between per capita income in Linn County compared to Oregon has widened since the late-1990s. During the 20-year period, Linn County's per capita personal income grew by 46%, while personal income grew by 51% in Oregon and 66% nationally during the same period.

Figure 5-2. Per capita personal income in the U.S., Oregon, and Linn County, 1990-2010, ($2010)



Source: Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce

EMPLOYMENT

The majority of residents of Harrisburg work in either Lane or Linn Counties. This section includes a review of employment trends in both counties, as well as a summary of employment trends in Harrisburg.

Tables 5-3 through 5-6 present data from the Oregon Employment Department that show changes in covered employment[46] for Linn and Lane Counties between 1980 to 2011. The changes in sectors and industries are shown in two tables: (1) between 1980 and 2000; and (2) between 2001 and 2011. The analysis is divided in this way because of changes in industry and sector classification that made it difficult to compare information about employment collected after 2001 with information collected prior to 2000.

Employment data in this section is summarized by *sector*, each of which includes several individual *industries*. For example, the Retail Trade sector includes General Merchandise Stores, Motor Vehicle and Parts Dealers, Food and Beverage Stores, and other retail industries.

Table 5-1 shows the changes in covered employment by sector in Linn County between 1980 and 2000. Total employment in the County grew from 29,770 to 41,237, adding 11,467 jobs. Every sector added jobs during this period, except for Manufacturing, Mining, and Nonclassifiable jobs. The sectors with the greatest change in employment were Services, Retail Trade and Construction, adding a total of 8,278 jobs. The sector that decreased the most was Manufacturing, which lost 763 jobs, although that only accounted for 7% of total employment in Manufacturing.

Table 5-1. Covered employment in Linn County, 1980-2000

				Change from 1980 to 2000			
Sector	**1980**	**1990**	**2000**	**Difference**	**Percent**	**AAGR**	**Share**
Agriculture, Forestry and Fishing	660	987	1,637	977	148%	3.7%	2%
Mining	58	--	25	-33	-57%	-3.3%	0%
Construction	1,314	1,291	2,465	1,151	88%	2.5%	2%
Manufacturing	11,195	10,344	10,432	-763	-7%	-0.3%	-12%
Trans., Comm., and Utilities	1,142	1,375	2,064	922	81%	2.4%	1%
Wholesale Trade	1,077	1,409	1,839	762	71%	2.2%	1%
Retail Trade	4,590	5,630	7,039	2,449	53%	1.7%	2%
Finance, Insurance and Real Estate	978	968	1,245	267	27%	1.0%	0%
Services	3,226	5,681	7,904	4,678	145%	3.6%	8%
Nonclassifiable/all others	103	28	49	-54	-52%	-2.9%	0%
Government	5,427	5,264	6,538	1,111	20%	0.7%	-2%
Total	**29,770**	**32,977**	**41,237**	**11,467**	**39%**	**1.3%**	

Source: Oregon Employment Department, Oregon Labor Market Information System, Covered Employment & Wages. http://www.qualityinfo.org/olmisj/CEP Accessed May 3, 2006. Summary by industry and percentages calculated by ECONorthwest

[46] Covered employment refers to jobs covered by unemployment insurance, which includes most wage and salary jobs but does not include sole proprietors, seasonal farm workers, and other classes of employees.

Table 5-2 shows the change in covered employment by sector for Linn County between 2001 and 2011. Employment decreased by 1,118 jobs or -3% during this period. The sectors with the largest increases in numbers of employees were Health & Social Assistance, Government, and Accommodations & Food Services. One reason for the increase in Government employment was that the Oregon Department of Employment reclassified home health care workers into the government category. Sectors that lost the greatest number of employees during this period were Manufacturing, Construction, Information, and Management of Companies.

Table 5-2. Covered employment in Linn County, 2001-2011

			Change from 2001 to 2011			
Sector	**2001**	**2011**	**Difference**	**Percent**	**AAGR**	**Share**
Agriculture, Forestry, Mining, Fishing & Hunt	2,085	2,113	28	1%	0.3%	0%
Construction	2,142	1,716	(426)	-20%	-5.4%	-1%
Manufacturing	8,783	6,681	(2,102)	-24%	-6.6%	-5%
Utilities	168	168	-	0%	0.0%	0%
Wholesale	1,540	1,407	(133)	-9%	-2.2%	0%
Retail	4,398	4,413	15	0%	0.1%	0%
Transportation & Warehousing	2,032	2,310	278	14%	3.3%	1%
Information	634	365	(269)	-42%	-12.9%	-1%
Finance & Insurance	848	728	(120)	-14%	-3.7%	0%
Real Estate Rental & Leasing	485	394	(91)	-19%	-5.1%	0%
Professional, Scientific & Technical Services	629	774	145	23%	5.3%	0%
Management of Companies	493	236	(257)	-52%	-16.8%	-1%
Admin. Support & Cleaning Services	2,091	2,016	(75)	-4%	-0.9%	0%
Education	232	408	176	76%	15.2%	0%
Health & Social Assistance	3,638	4,393	755	21%	4.8%	2%
Arts, Entertainment & Recreation	302	317	15	5%	1.2%	0%
Accomodations & Food Services	2,290	2,699	409	18%	4.2%	1%
Other Services (except Public Admin.)	1,383	1,439	56	4%	1.0%	0%
Private Non-Classified	13	5	(8)	-62%	-21.2%	0%
Government	6,536	7,022	486	7%	1.8%	2%
Total Covered Employment & Payroll	**40,722**	**39,604**	**(1,118)**	**-3%**	**-0.7%**	

Source: Oregon Employment Department, Oregon Labor Market Information System, Covered Employment & Wages. http://www.qualityinfo.org/olmisj/CEP Accessed August 1, 2012. Summary by industry and percentages calculated by ECONorthwest

Table 5-3 shows the changes in covered employment by sector in Lane County between 1980 and 2000. Total employment in the County grew from 97,600 to 139,696, adding 42,096 jobs. Every sector added jobs during this period, except for Mining. The sectors with the greatest change in employment were Services and Retail Trade, adding a total of 29,423 jobs. The sector that decreased the most was Mining, which lost 77 jobs, accounting for one third of all jobs in the Mining sector.

Table 5-3. Covered employment in Lane County, 1980-2000

Sector	1980	1990	2000	Change from 1980 to 2000 Difference	Percent	AAGR	Share
Agriculture, Forestry and Fishing	1,137	1,863	2,101	964	85%	2.5%	0%
Mining	231	179	154	-77	-33%	-1.6%	0%
Construction	4,600	3,992	6,834	2,234	49%	1.6%	0%
Manufacturing	19,638	20,654	23,658	4,020	20%	0.7%	-3%
Trans., Comm., and Utilities	3,836	3,750	3,845	9	0%	0.0%	-1%
Wholesale Trade	5,578	5,900	6,422	844	15%	0.6%	-1%
Retail Trade	20,299	24,429	28,758	8,459	42%	1.4%	0%
Finance, Insurance and Real Estate	4,217	4,523	6,198	1,981	47%	1.6%	0%
Services	18,272	27,817	39,236	20,964	115%	3.1%	9%
Nonclassifiable/all others	13	50	37	24	185%	4.3%	0%
Government	19,779	20,219	22,453	2,674	14%	0.5%	-4%
Total	**97,600**	**113,376**	**139,696**	**42,096**	**43%**	**1.4%**	**0%**

Source: Oregon Employment Department, Oregon Labor Market Information System, Covered Employment & Wages. http://www.qualityinfo.org/olmisj/CEP Accessed January 4, 2007. Summary by industry and percentages calculated by ECONorthwest

Table 5-4 shows the change in covered employment by sector for Lane County between 2001 and 2011. Employment decreased by 1,869 jobs or -1% during this period. The sectors with the largest increases in numbers of employees were Health & Social Assistance and Administrative Support & Cleaning Services. Sectors that lost the greatest number of employees during this period were Manufacturing and Construction.

Table 5-4. Covered employment in Lane County, 2001-2011

Sector	2001	2011	Change 2001 to 2011 Difference	Percent	AAGR	Share
Natural Resources and Mining	2,338	1,898	-440	-19%	-2.1%	0%
Construction	6,366	5,058	-1,308	-21%	-2.3%	-1%
Manufacturing	19,697	12,267	-7,430	-38%	-4.6%	-5%
Wholesale	5,300	5,278	-22	0%	0.0%	0%
Retail	17,912	18,246	334	2%	0.2%	0%
Transportation & Warehousing	2,606	2,635	29	1%	0.1%	0%
Information	3,729	3,260	-469	-13%	-1.3%	0%
Finance & Insurance	3,963	3,827	-136	-3%	-0.3%	0%
Real Estate Rental & Leasing	2,508	2,087	-421	-17%	-1.8%	0%
Professional, Scientific & Tech. Srv.	5,571	5,202	-369	-7%	-0.7%	0%
Management of Companies	1,818	1,970	152	8%	0.8%	0%
Admin. Support & Cleaning Srv.	6,399	7,399	1,000	16%	1.5%	1%
Education	1,067	1,495	428	40%	3.4%	0%
Health & Social Assistance	16,871	20,517	3,646	22%	2.0%	3%
Arts, Entertainment & Recreation	1,542	1,762	220	14%	1.3%	0%
Accomodations & Food Services	11,746	12,488	742	6%	0.6%	1%
Other Services (except Public Admin.)	5,552	5,411	-141	-3%	-0.3%	0%
Private Non-Classified	49	30	-19	-39%	-4.8%	0%
Government	22,398	24,733	2,335	10%	1.0%	2%
Total	**137,432**	**135,563**	**-1,869**	**-1%**	**-0.1%**	

Source: Oregon Employment Department, Oregon Labor Market Information System, Covered Employment & Wages. http://www.qualityinfo.org/olmisj/CEP Accessed August 2012. Summary by industry and percentages calculated by ECONorthwest

Table 5-5 shows covered employment by sector and industry within the Harrisburg Urban Growth Boundary (UGB) for 2004. The data in Table 5-5 is based on confidential records for individual employers provided to the Oregon Employment Department. Table 5-5 does not report employment in sectors where

there were fewer than three firms or where one firm accounts for greater than 80% of employment in order to maintain the confidentiality of individual employers.

Table 5-5 shows that Harrisburg had 70 establishments with 688 covered workers. The sectors with the largest level of employment in 2010 were Government (31%) and Agriculture and Manufacturing (28%), Wholesale Trade and Transportation (12%), and Administrative Support and Other Services (11%). Together these sectors accounted for 565 jobs and 82% of employment in Harrisburg.

The average pay for covered employees in 2010 was $29,640, compared with the County average of $35,100 and the State average of $41,700. The sectors with the highest average pay per employee were Construction and Agriculture and Manufacturing. The sectors with the lowest average pay per employee were Accommodation and Food Services, and Finance and Real Estate.

Table 5-5. Covered employment in Harrisburg UGB by sector and industry, 2010

Sector / Industry	Establish-ments	Employees		Payroll	
		Number	% of Total	Total	Average Pay/Emp.
Construction	6	22	3%	$ 917,698	$ 41,714
Agriculture and Manufacturing	8	191	28%	$ 7,739,663	$ 40,522
Wholesale Trade and Transportation	9	85	12%	$ 2,804,092	$ 32,989
Retail Trade	5	29	4%	$ 566,461	$ 19,533
Finance, Insurance, & Real Estate	8	25	4%	$ 509,072	$ 20,363
Professional Services, Health Care, and Social Assistance	6	8	1%	$ 170,902	$ 21,363
Accommodation & Food Services	8	39	6%	$ 437,252	$ 11,212
Administrative Support and Other Services	13	78	11%	$ 1,854,638	$ 23,777
Government	7	211	31%	$ 5,392,358	$ 25,556
Total	**70**	**688**	**100%**	**$ 20,392,136**	**$ 29,640**

Source: Confidential Quarterly Census of Employment and Workforce (QCEW) data provided by the Oregon Employment Department. Summary by sector and industry, percent of total employment, and average payroll per employee by ECONorthwest.

In 2004 Harrisburg had 998 employees at 69 establishments, with an average pay of $29,900.[47] Between 2004 and 2010, the composition of Harrisburg's economy changed, as a result of the national recession and of the regional decline in RV manufacturing. The majority of job losses were in Agriculture and Manufacturing, with the loss of 220 jobs (mostly in manufacturing) and Retail Trade (with the loss of 213 jobs). The sector that added the most jobs was Government, mostly in education.

The implications of the data in this section are:

- Despite declines, manufacturing continues to be an important source of employment for Lane and Linn Counties, including in Harrisburg. Manufacturing is one of the highest paying sectors in Harrisburg, as well as in Linn County and the State.
- The sectors that have grown the most in Lane and Linn Counties since the 1980's, Services and Retail Trade, generally provide lower paying jobs.

[47] This information is documented in Table 5-5 of the June 2007 Harrisburg Urbanization report.

- Average pay per employee in Harrisburg was flat in nominal dollars and decreased in real dollars (because pay did not keep pace with inflation). This is consistent with changes in average pay in Linn County and the State.

FORECAST OF REGIONAL EMPLOYMENT GROWTH

Harrisburg is growing at a faster rate than Linn County. Between 1990 and 2011, Harrisburg grew 1,646 people at an average annual rate of 3.0%, compared to the County's average annual growth rate of 1.2% over the same period. Chapter 2 presents population and employment forecasts for Harrisburg for 2013-2033 period. By 2033, Harrisburg is expected to have approximately 7,071 residents and 1,574 jobs.

Table 5-6 shows the Oregon Employment Department's forecast for employment by industry between 2010 and 2020 for Region 4, which includes Linn, Benton, and Lincoln Counties. Table 5-6 shows that the Oregon Employment Department forecasts that Region 4 will grow at an average annual growth rate of 1.5%, adding nearly 16,000 jobs. In comparison, the Employment Department forecasts that Oregon's employment will grow at an average annual growth rate of 1.7%, adding nearly 300,000 jobs.

The sectors that are projected to lead employment growth in Oregon for the ten-year period are: Health Care, Professional and Business Services, Accommodation and Food Services, Retail Trade, Manufacturing, Administrative and Support Services, and Government. Together, these sectors are expected to add 235,000 new jobs, or nearly 80% of the employment growth in Oregon.

The sectors that are expected to lead employment growth in Region 4 are Health Care and Social Assistance, Trade, Transportation & Utilities, and Professional & Business Services. Together, these sectors are expected to add 8,030 jobs, or 50% of the employment growth in Region 4 between 2010 and 2020.

Table 5-6. Nonfarm employment forecast by industry in Region 4 (Benton, Linn, and Lincoln Counties), 2010-2020

Sector/ Industry	2010	2020	Change	
			Number	Percent
Natural Resources & Mining	**3,600**	**4,080**	**480**	**13.3%**
Construction	**3,390**	**4,320**	**930**	**27.4%**
Manufacturing	**10,960**	**12,220**	**1,260**	**11.5%**
Durable Goods	7,930	9,230	1,300	16.4%
Wood Product Manufacturing	1,760	2,030	270	15.3%
Nondurable Goods	3,030	2,990	-40	-1.3%
Food manufacturing	1,050	1,140	90	8.6%
Transportation, & Utilities	**15,860**	**18,290**	**2,430**	**15.3%**
Wholesale Trade	2,090	2,470	380	18.2%
Retail Trade	10,380	11,710	1,330	12.8%
Transp., warehousing, & utilities	3,390	4,120	730	21.5%
Information	**1,410**	**1,510**	**100**	**7.1%**
Leisure & Hospitality	**10,460**	**12,430**	**1,970**	**18.8%**
Accomodation & Food Services	9,420	11,230	1,810	19.2%
Accomodation	2,210	2,530	320	14.5%
Food srvcs. and drinking places	7,210	8,710	1,500	20.8%
Financial Activities	**3,430**	**3,880**	**450**	**13.1%**
Professional & Business Services	**7,590**	**10,010**	**2,420**	**31.9%**
Administration and support srvcs.	3,270	4,230	960	29.4%
Education	**930**	**1,050**	**120**	**12.9%**
Health Care & Social Assistance	**11,330**	**14,510**	**3,180**	**28.1%**
Other Services	**3,090**	**3,590**	**500**	**16.2%**
Government	**25,620**	**27,680**	**2,060**	**8.0%**
Federal Government	1,300	1,370	70	5.4%
State Government	12,420	13,770	1,350	10.9%
Local Government	11,900	12,540	640	5.4%
Local Education	6,410	6,610	200	3.1%
Indian Tribal	1,050	1,240	190	18.1%
Total Payroll Emp.	**97,670**	**113,580**	**15,910**	**16.3%**

Source: Oregon Employment Department. Employment Projections by Industry 2010-2020. Projections summarized by ECONorthwest.

FACTORS AFFECTING FUTURE ECONOMIC DEVELOPMENT IN HARRISBURG

Economic development opportunities in Harrisburg will be affected by local conditions as well as the national and regional economic conditions that were addressed in the beginning of this chapter. Factors affecting future economic development in Harrisburg include its location, buildable land, labor force, housing, public services, transportation, natural resources, and quality of life. Harrisburg shares the general characteristics and advantages of the Willamette Valley, Oregon, and the Pacific Northwest as a whole, such as proximity to I-5 and the recreational amenities of the Oregon Coast and Cascade Mountains. Economic conditions in Harrisburg relative to conditions in the Willamette Valley form Harrisburg's comparative advantage for economic development, which has implications for the types of firms most likely to locate and expand in Harrisburg.

This section begins with a description of comparative advantage and why it is relevant for this Economic Opportunity Analysis. The section then reviews local factors affecting economic development in Harrisburg and any advantages, opportunities, disadvantages, or constraints these factors may present. It ends with a discussion of the comparative advantages formed by the mix of factors present in Harrisburg and the implications for the types of firms most likely to locate in Harrisburg.

There is little that Harrisburg can do to influence national and regional conditions that affect economic development. Harrisburg, however, can influence local factors that affect economic development.

WHAT IS COMPARATIVE ADVANTAGE?

Each economic region has different combinations of productive factors: land (and natural resources), labor (including technological expertise), and capital (investments in infrastructure, technology, and public services). While all areas have these factors to some degree, the mix and condition of these factors vary. The mix and condition of productive factors may allow firms in a region to produce goods and services more cheaply, or to generate more revenue, than firms in other regions.

By affecting the cost of production and marketing, comparative advantages affect the pattern of economic development in a region relative to other regions. Goal 9 and OAR 660-009-0015(4) recognizes this by requiring plans to include an analysis of the relative supply and cost of factors of production. An analysis of comparative advantage depends on the geographic areas being compared. Economic conditions in Harrisburg will be largely shaped by national and regional economic conditions affecting the Willamette Valley. This section focuses on the comparative advantages of Harrisburg relative to the Willamette Valley, as well as Linn County. The implications of these individual factors for Harrisburg's overall comparative advantage are discussed at the end of this section.

LOCATION

Harrisburg's location will substantially influence its future development. Harrisburg is located on Highway 99 East and near Interstate 5, about equidistant from Eugene and Corvallis. Harrisburg is located along the Willamette River and surrounded on three sides by agricultural lands. Harrisburg's location has played a critical role in the City's growth and will continue to have implications for economic development in the City.

- Harrisburg's location provides access for multiple forms of transportation. Harrisburg is located on Highway 99 East and is within 5 miles of Interstate-5, which is designed for rural use. The City is located along two railroads and is located 12 miles from Mahlon Sweet Airport in Eugene.
- Harrisburg has access to workers and markets of the cities of the Willamette Valley. Harrisburg is located approximately 25 miles from Eugene, Albany, and Corvallis, as well as about five miles from Junction City and 12 miles from Coburg. The City's proximity to these cities gives Harrisburg access to the labor force, employment opportunities, and markets of these cities. The City's proximity to these cities also provides workers in Harrisburg opportunities to live in an urban area outside of Harrisburg.
- Harrisburg offers access to rural housing and recreational opportunities. Harrisburg has a small-town atmosphere and access to a rural lifestyle, which provides housing and lifestyle options to workers in the mid-Willamette Valley. Harrisburg's location within the Willamette Valley and proximity to the Willamette Valley provides ample opportunities for outdoor recreation.
- Harrisburg has high quality agricultural soils to the north and east of the City, the Willamette River along the western border of the City, and much of the area directly south of the City is part of the flood plain for the Willamette. The agricultural lands around the cities have significant hydric soils, many of which may be wetlands.

Harrisburg's location is a comparative advantage for economic development in Harrisburg because its proximity to I-5 and Highway 99 provide excellent automotive access. Harrisburg offers residents affordable housing and a small town lifestyle, with major employers and city amenities within driving distance. However, Harrisburg's location also creates disadvantages for economic development including the presence of high quality agricultural lands and hydric soils and the rural nature of the Diamond Hill interchange with I-5.

TRANSPORTATION

A number of transportation options are available in Harrisburg, including state highways, Union Pacific Railroad, and the BNSF railroad. Harrisburg is located on Highway 99 East, approximately five miles west of I-5, which gives Harrisburg access to domestic and international markets via West Coast ports. In

addition, Harrisburg is located along Coburg and Peoria Roads, which are secondary roads that connect Eugene and Corvallis.

As Harrisburg grows, transportation capacity could become a constraining factor on economic development. John DeTar, the Region 2 Field Representative for Oregon Department of Transportation (ODOT)[48], described several transportation-related issues that Harrisburg is likely to face in the future. All of these issues relate to the increased traffic volumes associated with population growth; some present traffic safety issues for Harrisburg regardless of its plans to expand its UGB.

- While the Willamette River crossing on 99E is not currently a problem, DeTar noted two possible issues in the future: (1) the bridge probably does not have the capacity to accommodate significantly increased traffic volume; and (2) while the bridge has recently had maintenance, such as bridge deck work, and currently needs no major repairs, increased traffic volume—especially increased numbers of large trucks—could result in the need for increased maintenance work in the future. The bridge is used by approximately 11,200 vehicles per day.[49] ODOT projects that about 15,500 vehicles will use the bridge per day by 2025. ODOT does not expect there will be capacity issues with the bridge or highway through Harrisburg.
- The Highway 99E and LaSalle Street intersection is a primary connection to newer development areas in Harrisburg, as well as a connection to Coburg. The current Transportation Systems Plan (TSP) calls for a traffic signal at this intersection. According to DeTar, this intersection may need other changes to create an intersection that can function safely.
- The Diamond Hill interchange could also become a safety issue with increased traffic volume. DeTar described this interchange as having "antiquated rural design with limited sight-distances," and suggested that the best solution is to reconstruct the interchange. He does not expect this to be a cost-effective response any time in the near future, however, and suggested that a traffic signal might be necessary as the City grows.

Marguerite Nebata (former regional DLCD field representative)adds that the I-5 interchange closest to the city and used for much of the industry is not built to capacity for anything but rural use. This could constrain the amount and type of industry that locates in Harrisburg unless the I-5 interchange is upgraded to accommodate additional trucking and automobile traffic. Upgrading the I-5 interchange may not be fiscally practical in the foreseeable future. Territorial Road and Diamond Hill Road serve as the city's primary route to I-5.

Two rail lines run through Harrisburg: Union Pacific and BNSF. The Union Pacific line that serves Harrisburg runs from Portland to California, with a main operations center in Albany. The BNSF line that serves Harrisburg runs from

[48] Interviewed August 23, 2006

[49] ODOT 2005 Transportation Volume Table. Accessed 10/3/2006.

Salem to Eugene. Trains on these lines travel up to 70 miles per hour. The rail lines may require additional safety measures as population increases.

Passenger rail service is not available in Harrisburg. The closest available passenger service is in Albany or Eugene.

LABOR FORCE

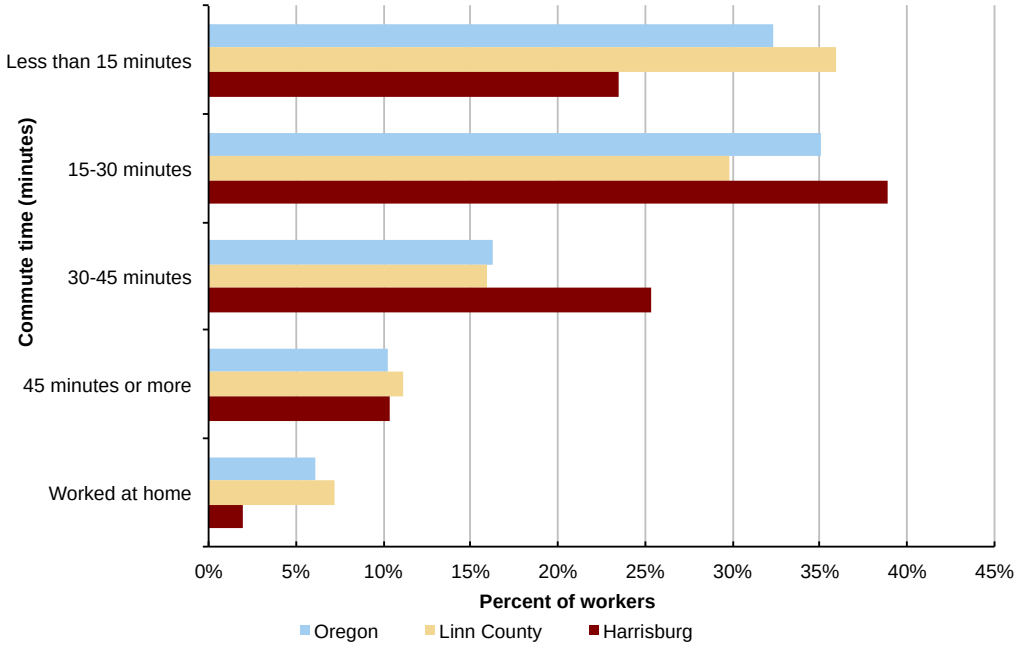
The availability of labor is critical for economic development. Availability of labor depends not only on the number of workers available, but the quality, skills, and experience of available workers. This section examines the availability of workers in Harrisburg.

The labor force in any market consists of the adult population (16 and over) who are working or actively seeking work. The labor force includes both the employed and the unemployed. Children, retirees, students, and people who are not actively seeking work are not considered part of the labor force.

The unemployment rate is one indicator of the relative number of workers who are actively seeking employment. Data from the U.S. Bureau of Labor Statistics shows that unemployment in Linn County was 11.1% in August 2012, compared with 8.7% in Oregon. Since 2002, unemployment rate in Linn County has been 1.1% to 2.6% higher than Oregon's average.

Figure 5-3 shows a comparison of the commute time to work for residents 16 years and older for Oregon, Linn County, and Harrisburg. Residents of Harrisburg generally spent more time commuting to work than residents of Linn County or Oregon. Thirty-six percent of Harrisburg residents spent more than 30 minutes commuting, compared with 27% of Linn County and Oregon residents.

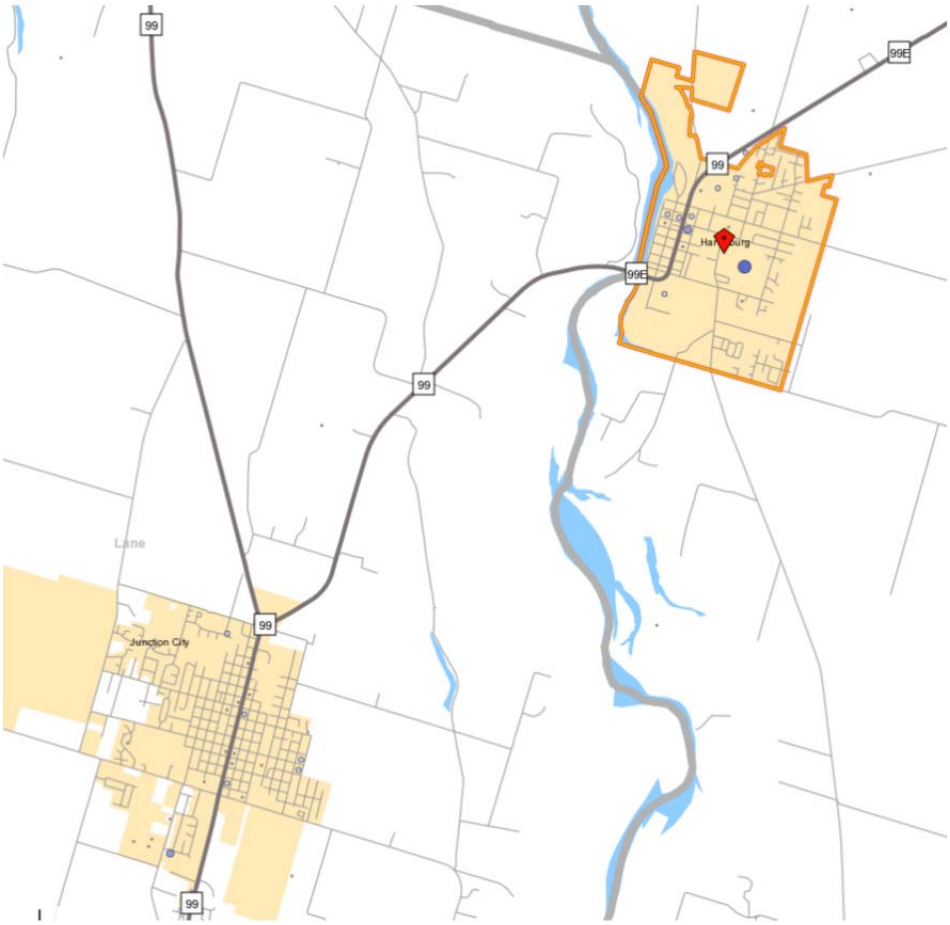
Figure 5-3. Commuting time to work in minutes for residents 16 years and older, Oregon, Linn County and Harrisburg, 2006-2010



Source: American Community Survey, 2006-2010.

Figure 5-4 and Table 5-7 show where residents of Harrisburg worked in 2010. Figure 5-4 and Table 5-7 show that nearly 50% of residents of Harrisburg worked in Lane County, with nearly one-quarter of Harrisburg residents working in Eugene and 7% working in Springfield. About 29% of Harrisburg residents worked in Linn County.

Figure 5-4. Places where residents in Harrisburg were employed, 2010



Source: US Census Bureau, LED Origin-Destination Data Base (2nd Quarter 2003)

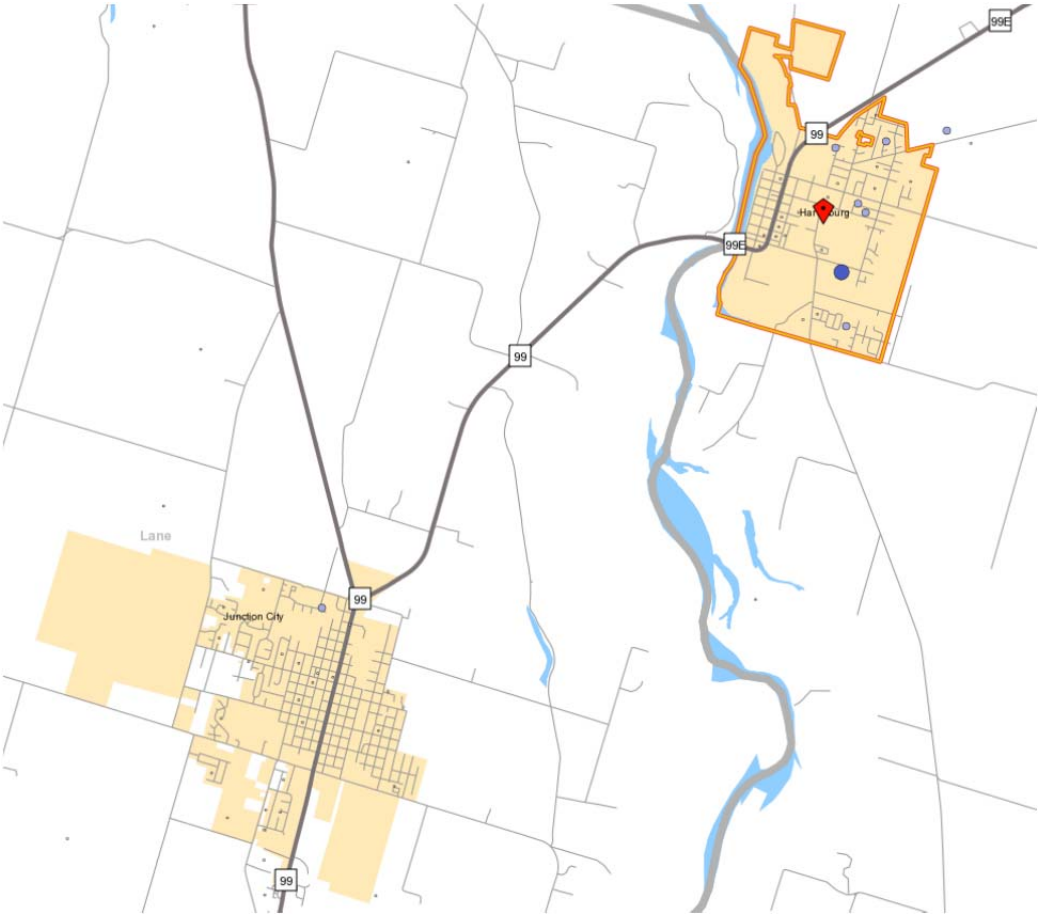
Table 5-7. Places where residents of Harrisburg were employed, 2010

Location	Number	Percent
Lane County	509	46%
Eugene	265	24%
Springfield	76	7%
Linn County	323	29%
Harrisburg	51	5%
Benton County	79	7%
Corvallis	66	6%
Marion County	48	4%
All Other Locations	140	13%
Total	1099	100%

Source: US Census Bureau, LED Origin-Destination Data Base (2010)

Figure 5-5 and Table 5-8 show where employees of firms located in Harrisburg lived in 2010. Nearly 50% of workers in Harrisburg lived in Linn County. Ten percent of workers in Harrisburg lived in Harrisburg. An additional 33% of workers lived in Lane County, 11% of whom lived in Eugene.

Figure 5-5. Places where workers in Harrisburg lived, 2010



Source: US Census Bureau, LED Origin-Destination Database (2nd Quarter 2003)

Table 5-8. Places where workers in Harrisburg lived, 2010

Location	Number	Percent
Linn County	252	49%
Harrisburg	51	10%
Albany	42	8%
Lane County	169	33%
Eugene	55	11%
All Other Locations	90	18%
Total	511	100%

Source: US Census Bureau, LED Origin-Destination Data Base (2010)

The implication of the data presented in this section is that majority of Harrisburg's workforce either live in Linn or Lane County, but do not reside in the City of Harrisburg. The analysis shows that businesses in Harrisburg have

access to the labor force in parts of Lane County and Linn Counties. This suggests that Harrisburg could be apportioned some of Lane County's population since the City is providing housing and services at a greater rate than Linn or Benton Counties.

HOUSING

Housing is an important factor for economic development strategy because it affects the type of residents and employers who may be attracted to a region. Housing and economic development strategies should consider the availability of affordable housing for all income levels and the impact of housing prices on workforce availability and attractiveness of the community.

Housing choices includes choices about location and the type of housing. When making location decisions, households may consider many factors: costs, views, neighborhood characteristics, quality of schools, tax rates, commute times, and other quality of life issues. Housing type is defined by many attributes, the most important of which are structure type (e.g., single-family, multi-family) and size, lot size, quality and age, and price.

Anecdotal information from local real estate agents suggests that Harrisburg residential real estate is very competitive with other nearby areas, such as Junction City. New homes developed in Harrisburg have become more upscale, and more families are choosing to purchase homes in Halsey or other smaller communities. Developers choose to build in Harrisburg because they believe it is easier to obtain building permits in Linn County, and buyers choose Harrisburg for the small town quality of life as well as the easy commute to larger-city amenities.

PUBLIC SERVICES

PUBLIC POLICY

Public policy support for economic development includes policies that local governments have to support economic activity, such as economic development policies and local tax policies. This section discusses broad economic development policies from Harrisburg's comprehensive plan and compares property tax rates between Oregon, Linn County and Harrisburg.

Harrisburg's comprehensive plan includes a number of economic goals, as follows:

- Diversify the economic base of the community.
- Encourage the growth of existing employers and attract new employers to Harrisburg that compliment the existing business community.
- Promote the health of its economy by encouraging economic development that is compatible with the City's infrastructure, service provision capabilities, environment, and the community's standards for quality of life.

- Implement the strategies in the Harrisburg Downtown Business Development and Marketing Plan.
- Support the maintenance and enhancement of the Harrisburg Historic District.
- Encourage the development and redevelopment of the commercial downtown core as an alternative to commercial sprawl.
- Provide for tourism related employment as an important part of the economic diversification effort.

Harrisburg's comprehensive plan includes a number of policies designed to implement the economic development goals:

- Provide appropriately designed vacant buildable land in adequate quantities to meet the forecasted needs of Harrisburg according to the 1998 Buildable Lands and Lands Needs Analysis.
- Plan and make public investments to meet the future demands of industrial, commercial and residential growth in Harrisburg.
- Encourage and support development of the communications infrastructure to attract high tech business and industry.
- Encourage tourism activities through the promotion of recreational/ historic sites and tourist related businesses.
- Encourage start up and growth of small to medium sized businesses providing family wage jobs.
- Encourage investment in the Downtown Commercial Core, and support project activities in the Historic District.
- Plan appealing people friendly streetscapes that make shopping downtown an enjoyable experience and accommodate public gathering for both residents and visitors.
- Encourage cooperation between public and private sectors to support economic growth.

ENTERPRISE ZONE

Harrisburg has established an enterprise zone that includes most or all land zoned for employment use within the City limits. The enterprise zone provides a break on property taxes on the improvements (e.g., buildings) to qualifying businesses for three to seven years. The purpose of the enterprise zone is to attract manufacturing businesses that would pay family wage jobs and diversify the city's property tax base. Other businesses, such as motels, hotels, and resorts could also qualify for property tax reductions within the enterprise zone.

Over the years about five businesses have taken advantage of the tax breaks associated with the Enterprise Zone, including Eagle Veneer, Precision Refinishing, and Wilcox. Most users have been small to medium-sized firms,

employing between 10 and 20 employees. According to Art Fish with Business Oregon, the zone has been used by small and medium-sized firms because of the smaller size of available sites in the Harrisburg area.

The tax incentives offered in rural enterprise zones include:

- The facility is not subject to local property taxes until the facility is in service.
- The facility is eligible for a three year property tax reduction, which could be extended to up to five years by the City Council.
- State corporate excise and income tax liabilities may be reduced, depending on the amount of the payroll, payment of the state minimum tax, and other variables.

The State's criteria for qualifying projects in rural enterprise zones across Oregon include:

- Increase full-time, permanent employment of the firm inside the enterprise zone by at least 10%, not less than one new job;
- Generally have no concurrent job losses outside the zone boundary inside Oregon;
- Maintain minimum employment level during the exemption period;
- Enter into a first-source agreement with local job training providers; and
- Satisfy any additional local conditions, which vary for each zone.

WATER

The Public Works Department of the City of Harrisburg provides drinking water to the residents of Harrisburg. According to Tim Bunnell, Community Development Superintendent, Harrisburg's drinking water comes from five wells. The wells generate about 250,000 gallons of water per day in the wintertime and about 450,000 gallons of water per day in the summertime. The peak day recorded volume of water demand was between 800,000 to 1,000,000 gallons of water per day. Water is treated by chlorination in a 2.5 million gallon storage tank.

Harrisburg is located within the Southern Willamette Valley Groundwater Management Area, which is working on an action plan to improve groundwater quality for the entire management area. The main water quality problem in the entire area (including Harrisburg) is elevated nitrate levels, from agriculture, animal waste from large feed operations, and septic systems. The action plan will include long-term plans to monitor and reduce the level of nitrates in the groundwater.

The City of Harrisburg has sufficient access to water and water treatment to meet current demands. The future availability of water will be influenced by the location and type of growth that occurs in Harrisburg. The City is planning

expansion of the well and chlorination system to accommodate 20 years of growth. Expansion plans for the water system include adding a sixth well and adding an additional 2.5 million gallon storage tank. Converting to a river intake system is being considered as an alternative to wells. The City has acquired water rights to the Willamette River.

WASTEWATER

The City of Harrisburg also provides wastewater treatment to residents of Harrisburg. The current plant is designed for a population of approximately 6,000 people. In 2030, the population projection is 4,892. The city would be on track to meet the capacity at 2030. The city still will have to expend money to maintain the system and provide funding mechanisms for sewer infrastructure for new developments. According to Tim Bunnell, Community Development Superintendent, the City of Harrisburg switched to a lagoon treatment system in 1992. The City expanded their wastewater treatment system in 2005, to include 28 acres of lagoons.

The City treats an average of 250,000 gallons of waste per day during the summer. Inflow and infiltration of rainwater increase the amount of waste treated during winter months to a peak of approximately 1 million gallons per day. In the summer months, treated wastewater is used for irrigation of poplar trees and is discharged into the Willamette River in the winter months.

With the expansion of the wastewater treatment system in 2005, the City expects to have capacity to provide wastewater treatment service for the projected growth for the next 10 to 15 years. The main constraint to providing additional services to the City is the possible need for additional pumping stations and the lack of federal and state funding for increased capacity.

STORMWATER

Stormwater drainage is a concern for communities within the Willamette Valley. The City of Harrisburg began separating sanitary and storm water in 1978. Stormwater is treated to remove some grease but is not otherwise treated or monitored. In Harrisburg, excess rain has caused flooding on some streets. The City is completed a project to increase drainage in underserved parts of the City (e.g., Territorial at 7th Street) in 2007.

As part of the current effort to improve water quality in the Willamette Basin, DEQ is currently working with communities, including Harrisburg, to develop and implement strategies to control pollution from stormwater, and to improve temperature in regimes waterbodies. The City will need to develop such a plan for current lands that have been developed as well as new lands that will come under city jurisdiction.

As Harrisburg continues to grow, the City will need to continue to expand and build new infrastructure to accommodate stormwater drainage.

QUALITY OF LIFE

Quality of life is difficult to assess because it is subjective—different people will have different opinions about factors affect quality of life, desirable characteristics of those factors, and the overall quality of life in any community. Economic factors such as income, job security, and housing cost are often cited as important to quality of life. These economic factors and overall economic conditions are the focus of this report, so this section will focus on non-economic factors that affect quality of life.

Harrisburg's quality of life, combined with it location and access to transportation, is a key comparative advantage for economic development. ECO interviewed a number of stakeholders and asked them to name key quality of life factors for Harrisburg. The following list summarizes the quality of life factors that affect the City:

- *Small town atmosphere.* Stakeholders said that Harrisburg is a friendly place to live and a good place to raise children.
- *Low cost of living.* The cost of living, especially of homes for families of moderate incomes, makes Harrisburg an attractive place to live.
- *Mixture of rural and urban places to live.* Harrisburg offers rural and urban living situations.
- *Ease of auto access.* Harrisburg has easy access to Interstate 5, State Highway 99 East, and secondary roads that connect Harrisburg with other cities in the mid-Willamette Valley.
- *Central location in the Southern Willamette Valley.* Interstate 5 and the state highway system provide relatively easy access from Harrisburg to Eugene, Springfield, Corvallis, and Albany.
- *Access to outdoor recreation.* Residents have easy access to outdoor recreational opportunities, including hiking, water sports on nearby rivers, bicycling, and other activities.

While Harrisburg has many desirable qualities, one aspect of quality of life that is lacking is retail services. Harrisburg currently lacks many retail options for residents, particularly a full-service grocery store.

POTENTIAL GROWTH INDUSTRIES IN HARRISBURG

The mix of productive factors present in Harrisburg, relative to other communities and regions in Oregon, are the foundation of the region's comparative advantage. A primary comparative advantage in Harrisburg is its location on Highway 99 East and proximity to I-5, central location in the Willamette Valley, comparatively low housing costs, and quality of life. This makes Harrisburg attractive to residents and businesses that want a high quality of life where they live and work. Harrisburg provides a small town feel, as well as access to major transportation networks. Comparatively low housing costs are another important comparative advantage in Harrisburg.

The industries that have shown growth and business activity in Oregon over the past few years are shown earlier in this chapter. These industries are indicative of businesses that might locate or expand in Harrisburg. The characteristics of Harrisburg will affect the types businesses most likely to locate in Harrisburg:

- **Manufacturing**. The type of manufacturing businesses likely to locate in Harrisburg are those that need easy access to transportation, a skilled labor force, and a semi-rural setting. Examples include: food processing or specialty manufacturing.
- **Retail and local government**. Population growth will drive the growth of retail and local government. Harrisburg may attract a variety of retailers as it grows, including a full-service grocery store, an additional gas station, agriculture related retail, and other small retailers. Local government, especially schools, will also grow as population grows.
- **Services**. As Harrisburg grows, it may attract services to serve the growing population. Services include personal services, restaurants, and financial services.

Cities exist in an economic hierarchy in which larger cities offer a wider range of goods and services than smaller cities. The location of a community relative to larger cities, as well as its absolute size, affects the mix of goods and services that can be supported by a small city. Harrisburg's small size and proximity to larger cities has implications for the types of retail and service firms most likely to locate in Harrisburg:

- Big-box retail is unlikely to locate in Harrisburg because of its proximity to Eugene-Springfield, Corvallis, Lebanon, and Albany. Big-box retailers are more likely to locate in these larger communities because of the larger customer base.
- Population growth in Harrisburg will drive more development of small and specialty retail and services.

DEMAND FOR COMMERCIAL AND INDUSTRIAL LAND IN HARRISBURG

EMPLOYMENT BASE FOR PROJECTION

Chapter 2 presents a forecast of employment growth in Harrisburg, using the QCEW (Quarterly Census of Employment and Wages) data provided by the Oregon Employment Department in Table 5-5 as the base for the forecast. Table 5-9 presents the forecast for employment growth in Harrisburg, consistent with Table 2-7.

Table 5-9. Employment growth by land use type in the Harrisburg UGB area, 2013–2033

Land Use Type	2013 Total	% of Total	2033 Total	% of Total	2013-2033 Growth
Retail and Services	309	34%	551	35%	242
Industrial	368	41%	708	45%	340
Government	229	25%	315	20%	86
Total Employment	906	100%	1,574	100%	668

Source: ECONorthwest.
Note: shaded cells indicate assumptions by ECONorthwest.

DEMAND FOR INDUSTRIAL AND OTHER EMPLOYMENT LAND

Employment growth in Harrisburg will drive demand for industrial, commercial, and public land. To estimate the demand for land generated by employment growth, ECO used factors for the number of employees per acre for each of the three land use types used in the employment forecast. ECO began this step by making a deduction from total new employment (we refer to this as the "refill" assumption) for employment growth that will be accommodated on existing developed or redeveloped land, as when an existing firm adds employees without expanding space.

Typical refill deductions range from 10% in small cities to 30% or more for larger areas. For example, Portland Metro estimated refill at around 40% for 1996 and 1997 in a small empirical study they conducted. A reasonable refill rate for Harrisburg is probably 10%.

The next set of assumptions needed to estimate non-residential land need is employees per acre (EPA). This variable is defined as the number of employees per acre on non-residential land that is developed to accommodate employment growth. There are few empirical studies of the number of employees per acre, and these studies report a wide range of results. Ultimately the employees/acre assumptions reflect a judgment about average densities and typically reflect a desire for increased density of development. Table 5-10 uses the DLCD report "Goal 9: Cheaper, Easier, Faster, More Relevant" to provide guidance about future development densities. The report suggests that small cities can use 20 EPA for commercial development, 20 EPA for light industrial, and 10 EPA for heavy industrial development. The industrial density assumption in Table 5-10

(15 EPA) assumes that Harrisburg will continue to have a mix of heavy and light industrial.

The final assumption is a net to gross factor. The EPA assumptions are employees per *net* acre (e.g., acres that are in tax lots). As land gets divided and developed, some of the land goes for right-of-way and other public uses. The net to gross factor varies by land use, but 20% is a reasonable assumption for employment lands.

Table 5-10 shows estimated demand for employment land in the Harrisburg UGB by land use type for the 2013-2033 . The results show that Harrisburg will need an estimated 44 gross acres of land for employment within its UGB for the 2013-2033 period.

Table 5-10. Estimated demand for employment land in the Harrisburg UGB by land use type, 2013-2033

Land Use Type	Total New Emp.	Emp. On Refill Land	Emp. on New Land	Emp. Per Net Acre	Land Need (Net Acres)	Land Need (Gross Acres)
Retail and Services	242	24	218	20	11	14
Industrial	340	34	306	15	20	26
Government	86	9	77	20	4	5
Total	**668**	**67**	**601**		**35**	**44**

Source: ECONorthwest.

Employment growth in Harrisburg is expected in the each of the categories defined by type of land use: Retail and Services, Industrial, and Government. There are a wide variety of firms within each of these categories, and the required site and building characteristics for these firms range widely. As such, a variety of parcel sizes, building types, and land use designations in Harrisburg are required to accommodate expected growth.

More specific site needs and locational issues for firms in potential growth industries include the following issues:[50]

- **Flat sites:** Flat topography (slopes with grades below 10%) is desirable to all firms in every industry except certain retail and services. Flat sites are particularly important for Industrial firms in manufacturing.

- **Parcel configuration and parking:** Larger Industrial and Commercial firms that require on-site parking or truck access are attracted to sites that offer adequate flexibility in site circulation and building layout. Parking ratios of 0.5 to 2 spaces per 1,000 square feet for Industrial and 2 to 3 spaces per 1,000 square feet for Commercial are typical ratios for these firms.

[50] The following discussion is taken in part from the *Bear Creek Valley Economic Opportunities Analysis,* ECONorthwest, 2006.

- **Soil type:** Soil types are not very important for the types of firms likely to locate or expand in Harrisburg—provided that drainage is not a major issue.

- **Road transportation:** Most firms are heavily dependent upon surface transportation for efficient movement of goods, customers, and workers.

- **Rail Transportation**: Rail access can be very important to certain types of heavy industries. Rail access is may be important to the types of firms likely to locate or expand in Harrisburg.

- **Air transportation:** Proximity to air transportation is important for some firms engaged in manufacturing, finance, or business services.

- **Transit:** Transit access is most important for businesses in Health Services, which has a high density of jobs and consumer activity, and serves segments of the population without access to an automobile.

- **Pedestrian and bicycle facilities:** The ability for workers to access amenities and support services such as retail, banking, and recreation areas by foot or bike is increasingly important to employers, particularly those with high-wage professional jobs. The need for safe and efficient bicycle and pedestrian networks will prove their importance overtime as support services and neighborhoods are developed adjacent to employment centers.

- **Fiber optics and telephone:** Most if not all industries expect access to multiple phone lines, a full range of telecommunication services, and high-speed internet communications.

- **Potable water:** Potable water needs range from domestic levels to 1,000,000 gallons or more per day for some manufacturing firms. The demand for water for fire suppression also varies widely.

- **Power requirements:** Electricity power requirements range from redundant (uninterrupted, multi-sourced supply) 115 kva to 230 kva. Average daily power demand (as measured in kilowatt hours) generally ranges from approximately 5,000 kwh for small business service operations to 30,000 kwh for very large manufacturing operations. For comparison, the typical household requires 2,500 kwh per day.

- **Land use buffers:** According to the public officials and developers/brokers ECO has interviewed, many Industrial areas have operational characteristics that do not blend as well with residential land uses as they do with Office and Commercial areas. Generally, as the function of industrial use intensifies (e.g., heavy manufacturing) so to does the importance of buffering to mitigate impacts of noise, odors, traffic, and 24-hour 7-day week operations. Adequate buffers may consist of

vegetation, landscaped swales, roadways, and public use parks/recreation areas. Depending upon the industrial use and site topography, site buffers range from approximately 50 to 100 feet. Selected commercial office, retail, lodging and mixed-use (e.g., apartments or office over retail) activities are becoming acceptable adjacent uses to light industrial areas.

In summary, the site requirements for industries have many common elements. Firms in all industries rely on efficient transportation access and basic water, sewer and power infrastructure, but may have varying need for parcel size, slope, configuration, and buffer treatments. Transit, pedestrian and bicycle access are needed for commuting, recreation and access to support amenities.

Table 5-11 shows characteristics of commercial and industrial land in Harrisburg with employment in 2012. Table 5-11 divides land into the following site sizes: sites less than 5 acres, sites 5 to 10 acres, and sites larger than 10 acres. The characteristics shown in Table 5-11 are:

- **Share of employment.** The distribution of employment (as a percent of total) by size of sites.
    - For retail and service sites, 49% of employment is located on sites smaller than five acres, 16% on sites 5 to 10 acres, and 34% on sites larger than 10 acres.
    - For industrial sites, employment is divided approximately into thirds, among the site sizes. Note that the share of employment for sites 5 to 9.9 acres and more than 10 acres is also not disclosed for confidentiality purposes
- **Amount of land (acres).** The number of acres with employment in Harrisburg in each site size class.
- **Number of sites.** The number of sites with employment in Harrisburg in each site size class.
- **Employees per acre (EPA). The existing employment density on sites in Harrisburg in 2012.**

Table 5-11. Characteristics of commercial and industrial land with employment, Harrisburg, 2012

	Existing Site size (acres)			
	Less than 5	5 to 9.9	More than 10	Total
Share of employees				
Retail and Services	49%	16%	34%	100%
Industrial	39%	**	**	100%
Total	44%	23%	33%	100%
Amount of land (acres)				
Retail and Services	25.4	17.8	32.7	75.9
Industrial	15.1	35.8	24.9	75.9
Total	**40.5**	**53.6**	**57.6**	**151.7**
Number of sites				
Retail and Services	36	3	3	42
Industrial	16	6	1	23
Total	**52**	**9**	**4**	**65**
Employees per Acre				
Retail and Services	6.6	3.1	3.6	4.5
Industrial	11.0	1.5	4.7	4.5

Source: Quarterly Census of Employment and Workforce data from the Oregon Employment Department; Harrisburg GIS data, Analysis by ECONorthwest
** Note: The actual number of employees on industrial sites more than 10 acres cannot be disclosed for confidentiality reasons. Harrisburg does have an employer on an industrial site with more than 10 acres and that employer has a substantial number of employees on that site.
The share of employment for sites 5 to 9.9 acres and more than 10 acres is also not disclosed for confidentiality purposes

Based on the information about existing site characteristics in Table 5-11 and the employment forecast in Table 5-10, Harrisburg might expect:

- The majority of employment to locate on sites smaller than five acres.
- Demand for two retail and services sites between five to 10 acres and demand for two retail and services sites larger than 10 acres.
- Demand for six industrial sites between five to 10 acres and demand for one industrial site larger than 10 acres.

The analysis in Table 5-10, however, shows Harrisburg's employment land growing at higher densities than those shown in Table 5-11.

- **Retail and services.** Assuming that retail and services employment grows at about 20 employees per acre (EPA) and Harrisburg has demand for 13 acres of commercial land, it seems reasonable to assume that Harrisburg will need one to three sites around five acres in size (e.g., between three and six acres) or one larger site (e.g., a seven to 10 acre site).
- **Industrial.** Assuming that industrial employment grows at about 10 EPA and Harrisburg has demand for 25 industrial acres, it seems reasonable to assume that Harrisburg will need one larger site (e.g., 10 acres or larger) and one to three sites around five acres in size.

Chapter 6 Comparison of land supply and demand

This chapter summarizes from data and analysis presented in Chapters 2 through 5 to compare "demonstrated need" for vacant buildable land with the supply of such land currently within the Harrisburg UGB and city limits. Chapter 2 described population and employment forecasts, Chapter 3 described land supply, Chapter 4 described residential land needs, and Chapter 5 described land needed for employment.

The following section estimates land needed for other uses; the chapter concludes with a comparison of land supply and land demand for the 2013-2033 period.

LAND NEEDED FOR OTHER USES

Cities need to provide land for uses other than housing and employment. Public facilities such as schools, governments, churches, parks, and other non-profit organizations will expand as population increases. Many communities have specific standards for parks. School districts typically develop population projections to forecast attendance and need for additional facilities. All of these uses will potentially require additional land as a city grows.

Previous sections estimated land demand for housing and employment; this section considers other uses that consume land and must be included in land demand estimates. Demand for these lands largely occurs independent of market forces. Many can be directly correlated to population growth.

For the purpose of estimating land needed for other uses, these lands are classified into three categories:

- *Lands needed for public operations and facilities.* This includes lands for city offices and maintenance facilities, schools, state facilities, substations, and other related public facilities. Land needs are estimated using acres per 1,000 persons for all lands of these types.

- *Lands needed for parks and open space.* The estimates use a parkland standard of 7 acres per 1000 persons based on the level of service standard established in the 2004 Harrisburg Parks Master Plan.

- *Lands needed for semi-public uses.* This includes churches, non-profit organizations, and related semi-public uses. The analysis includes land need assumptions using acres per 1,000 persons for all lands of these types.

Table 6-1 shows land in public and semi-public uses by type. The data show that Harrisburg had a total of 51 acres in 21 tax lots in public and semi public uses in 2006. This equates to 15.3 acres per 1000 persons. The largest uses were the Harrisburg School District and churches.

Table 6-1. Summary of public and semi-public uses by type, Harrisburg, 2012

Type of Use	Tax Lots	Acres	Acres / 1000 Persons	Assumed Need (Ac/1000 Persons)
Church	7	8.1	2.4	3.0
City	6	1.8	0.6	1.0
Federal	1	0.2	0.0	0.0
Fraternal	1	0.1	0.0	0.0
School	3	37.0	11.1	12.0
Parks	3	3.8	1.1	23.3
Total	**21**	**51.0**	**15.3**	**39.3**

Source: City of Harrisburg data , analysis by ECONorthwest

Table 6-2 shows estimated need for public and semi-public land for the period from 2013-2033. Based on the assumed land need, Harrisburg will need to plan for about 33 acres for public and semi-public uses between 2013 and 2033.

Table 6-2. Summary of public and semi-public uses by type, and estimated land need, Harrisburg, 2013-2033

Type of Use	Assumed Need (Ac/1000) Persons	Estimated Need
Church	3.0	9
City and other government	1.0	3
Parks	7.0	21
Total	**11.0**	**33**

Source: City of Harrisburg data , analysis by ECONorthwest
Public and semi-public land uses occur in all plan designations.

Table 6-2 does not include an estimate of land needed by the Harrisburg School District because the District has not completed a facilities plan (consistent with ORS 195.110) that identifies a need for land for schools.

Table 6-3 shows an allocation of public and semi-public land need to Harrisburg's Plan Designation based on existing land uses and allowable uses in the City's zoning ordinance. Table 6-3 shows the following allocations:

- **LDR.** Half of land demand for churches is assumed to be accommodated in LDR.

- **Public.** Park land need might be accommodated in a public designation (which the City does not currently have) or in LDR. If the City brings parkland into the UGB for parks uses, the City zone the land for public uses.

- **Commercial.** Half of land demand for churches is assumed to be accommodated on Commercial land. All of the demand for land for City uses (e.g., city offices or public facilities) is assumed to be accommodated on Commercial land.

Table 6-3. Allocation of public and semi-public land need (acres) to Plan Designations, Harrisburg, 2013-2033

	Plan Designation			
	LDR	Public	Commercial	Total
Church	4.5		4.5	9
City			3.0	3
Parks		21.0		21
Total	**4.5**	**21.0**	**7.5**	**33**

Source: City of Harrisburg data , analysis by ECONorthwest
Public and semi-public land uses occur in all plan designations.

SUMMARY OF LAND NEED AND DEMAND

Table 6-4 shows total land demand for the 2013 to 2033 period. The results lead to the following findings:

- Total land demand for all uses is estimated to be 274 gross buildable acres for the 2013-2033 period.
- The City will need about 202 gross acres for residential uses between 2013 and 2033 .
- The City will need about 39 gross acres for employment between 2013 and 2033.

  Land needed for government employment uses (5 acres between 2013 and 2033) is accommodated through the estimate for public and semi-public uses.
- The City will need about 33 gross acres for public and semi-public uses between 2013 and 2033 .

Table 6-4. Estimated total land need, Harrisburg UGB, 2013-2033

Land Use	Land Need (Gross Acres)
Residential	
Low Density Residential	148
Medium Density Residential	45
High Density Residential	10
Subtotal - Residential	**202**
Non-Residential (Employment)	
Commercial (Retail & Services)	14
Industrial	26
Subtotal - Non-Residential	**39**
Other (Public/Semi-Public)	
Church	9
City	3
Parks	21
Subtotal - Public/Semi-Public	**33**
Total Land Need	**274**

Source: ECONorthwest

COMPARISON OF SUPPLY AND DEMAND

Table 6-5 compares land supply and demand for Harrisburg by generalized zoning. The results show that Harrisburg has a deficit of lands for the 2013-2033 period. Following are a implications of Table 6-5:

- Harrisburg has an immediate need to expand its UGB for housing and commercial (retail and services) land.
- The estimates identify a deficit of residential lands of 53 acres for the 2013 to 2033 period, with a 26 acre deficit in LDR, 18 acre deficit in MDR, and 10 acre deficit in HDR. These estimates include land needed for public and semi-public uses.
- The estimates identify a deficit of 21 acres for parks the 2013 to 2033 period.
- The estimates identify a deficit of commercial lands of 18 acres for the 2013 to 2033 period.
- The estimates identify a surplus of 134 acres of industrial land for the 2013-2033 period. The supply of industrial land include 60 acres of EFU land that are located within the UGA but not within the city limits.

Table 6-5. Comparison of land supply and demand, Harrisburg UGB, 2013-2033

Land use type	Land Demand	Supply	Surplus (deficit)
Residential	**207**	**154**	**(53)**
LDR	152	127	(26)
Housing	148		
Public and Semi-Public	5		
MDR	45	27	(18)
HDR	10	0	(10)
Parks - Public	**21**	**0**	**(21)**
Commercial	**21**	**3**	**(18)**
Employment	14		
Public and Semi-Public	7		
Industrial	**26**	**159**	**134**
Total	**254**	**316**	

Source: ECONorthwest
Notes: Vacant buildable land in the UGA but outside the city limits was allocated to the appropriate land use type. EFU land was allocated to Industrial land because 50 of the 60 acres of EFU is in one parcel that the City plans to use for industrial development.
Note: Table 6-5 incorporates land needed for public uses into the plan designations shown in Table 6-3. For example, Harrisburg has demand for 148 acres of LDR land for housing and 5 acres of land for public and semi-public uses, for a total of a 152 acre demand.

Table 6-5 does not tell the complete story about employment site needs in Harrisburg.

- **Land for commercial uses.** Table 6-5 identifies a deficit of 18 acres of commercial land. Based on the site needs analysis in Chapter 4, Harrisburg's commercial land deficit can be addressed in several ways: (1) with one large site (e.g., a seven to 10 acre site) and multiple smaller sites (e.g., sites two acres or less) or (2) with two mid-sized sites(e.g., between three and six acres) and multiple smaller sites (e.g., sites two acres or less).

  ECO will work with city staff and officials to identify opportunities to accommodate Harrisburg's commercial sites within the existing UGB, as part of revisions to the City's Comprehensive Plan. This decision will be addressed in the UGB alternatives analysis. Revisions to the City's Comprehensive Plan will include one or more policies about providing sufficient commercial land to provide local opportunities for commercial development to serve the City's growing population.

- **Land for industrial uses.** Table 6-5 identifies a surplus of 133 industrial acres over the 20-year planning period. Table 3-6 shows that Harrisburg has two industrial sites over 20 acres in size (for a total of 50 acres) and one 67 acre site in the urban growth area (currently zoned UGB-EFU). Harrisburg wants to preserve key industrial sites, which includes but is not limited to the three large sites, for future industrial uses.

  Revisions to the City's Comprehensive Plan will include one or more policies about preserving prime industrial land for industrial uses. As part of the update to the Comprehensive Plan, the City may consider redesiganting non-prime industrial land with appropriate characteristics (e.g., location, site size, or transportation access) to meet land deficiencies, such as the City's commercial land deficit.

Appendix A Summary of National Housing Trends

The overview of national, state, and local housing trends builds from previous work by ECO, Urban Land Institute (ULI) reports, and conclusions from The *State of the Nation's Housing, 2012* report from the Joint Center for Housing Studies of Harvard University.[51] The Harvard report summarizes the national housing outlook as follows:

> "After several false starts, there is reason to believe that 2012 will mark the beginning of a true housing market recovery. Sustained employment growth remains key, providing the stimulus for stronger household growth and bringing relief to some distressed homeowners. Many rental markets have already turned the corner, giving a lift to multifamily construction but also eroding affordability for many low-income households. While gaining ground, the homeowner market still faces multiple challenges. If the broader economy weakens in the short term, the housing rebound could again stall."

The national housing market continues to suffer from a large backlog of foreclosed homes, large numbers of 'underwater' mortgages, and high vacancy rates. The eventual recovery of the national housing market is dependent on near-term resolution of outstanding foreclosures and long-term job growth and expansion of the economy.

RECENT TRENDS IN HOME OWNERSHIP AND DEMAND

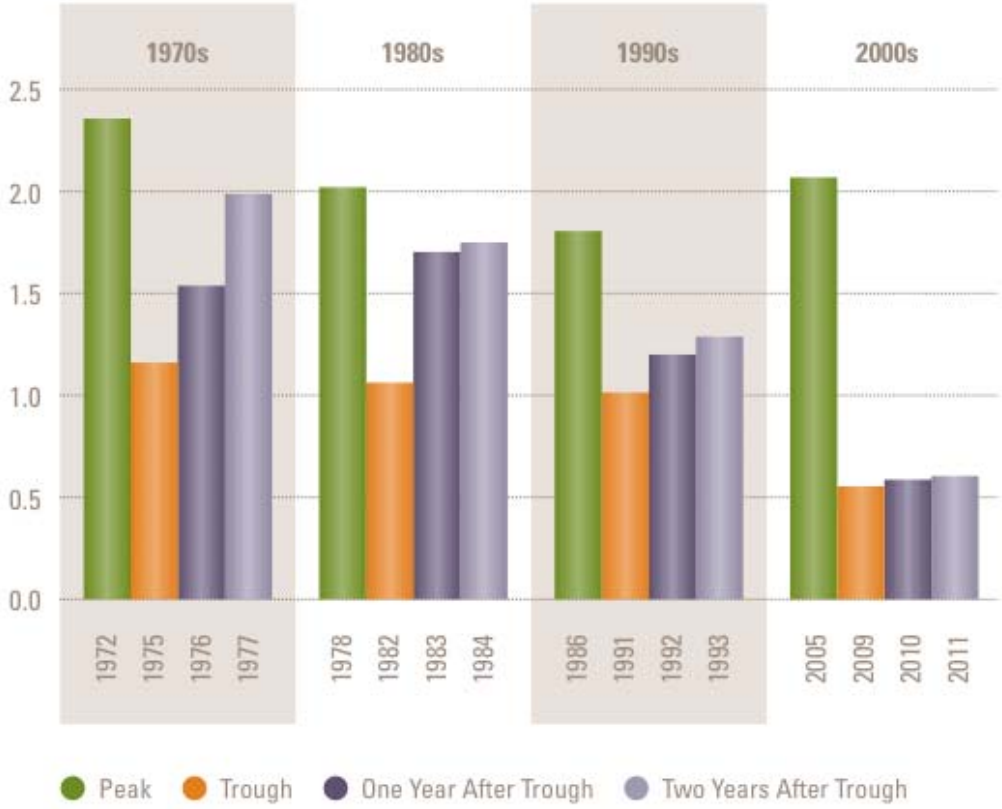
The last seven years saw a continuation of the significant departure from the recent housing boom that had lasted for 13 consecutive years (1992-2005). While strength in early 2005 pushed most national housing indicators into record territory, the market began to soften and sales slowed in many areas in the latter half of 2005. By 2006, higher prices and rising interest rates had a negative impact on market demand. Investor demand, home sales and single-family starts dropped sharply. Growth in national sales prices also slowed. By 2007 and early 2008, housing market problems had reached the rest of the economy, resulting in a nationwide economic slowdown and recession. The slowdown has continued through 2012, although the national housing market shows signs of recovery.

Figure A-1 shows the housing market cycles for the last four decades, from the 1970's through the 2000's. The housing downturn and recovery in the 2000's

[51] http://www.jchs.harvard.edu/research/publications/state-nation%E2%80%99s-housing-2012

is weaker than any housing cycle since the 1970's. Most notably, housing starts have been below 1 million units per year since 2009, with little of the rebound present after housing troughs in other decades.

Figure A-1. Housing market cycles, 1970's to 2000's



Source: The State of The Nation's Housing, 2012, The Joint Center for Housing Studies of Harvard University, p. 8. http://www.jchs.harvard.edu/son/index.htm

From 2000 to 2005 housing starts and manufactured home placements appeared to have been roughly in line with household demand. In 2005, with demand for homes falling but construction coming off record levels, the surplus of both new and existing homes was much higher than in recent years. Between July 2006 and January 2009, the number of new homes for sale fell by 41% and demand dropped even faster. The supply of new homes for sale reached 12.4 months, the highest in U.S. history.

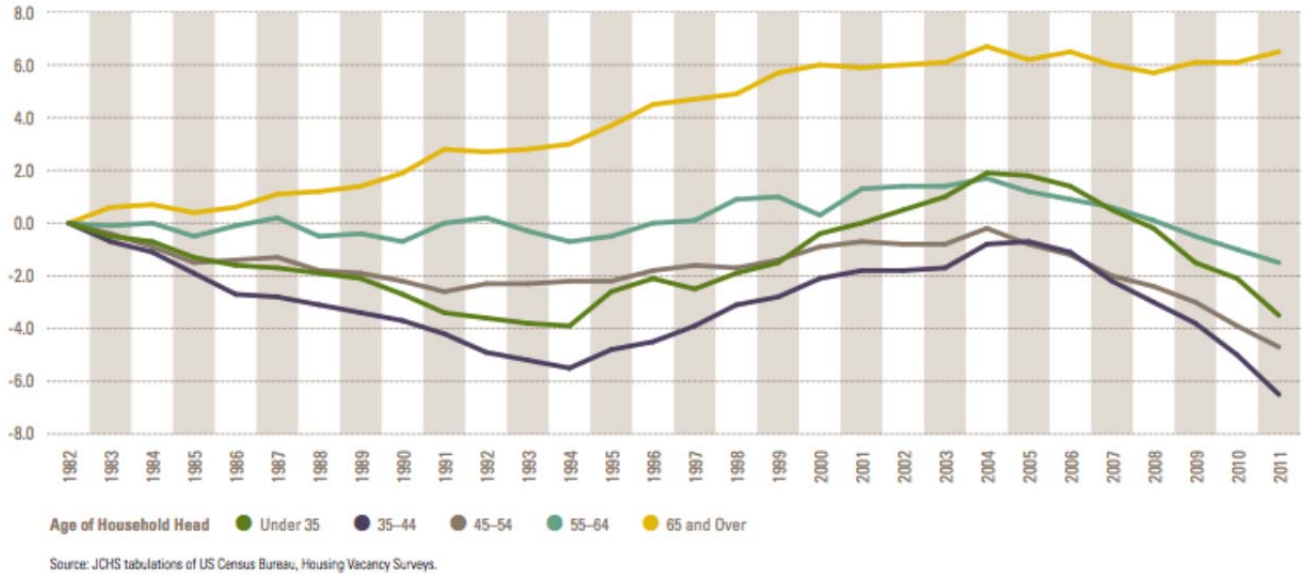
Home sales remained lackluster through most of 2011, but increased strongly in late 2011 and early 2012. The supply of new homes for sale reached 6.2 months in the first quarter of 2012, the lowest level since 2006. According to the Joint Center for Housing Studies, a six-month supply is a rough indicator of market balance.

However, the promising home supply figures do not account for the number of vacant units held off the market. In 2011, the number of vacant units held off

market rose to 5.5% of housing stock, up from about 4.5% in 2000-2002. When these units come on the market, they could drag home prices down further.

The Joint Center for Housing Studies concludes that the cooling housing market in 2006 and the foreclosure crisis have had an immediate impact on homeownership (Figure A-2). Homeownership peaked at 69.9% in 2005. After 13 successive years of increases, the national homeownership rate slipped each year from 2005 to 2011 and was at 65.4% in the first quarter of 2012. The Joint Center for Housing Studies predicts that the homeownership rate will continue to decline in the near-term due to the foreclosure backlog and tight credit conditions. As Figure A-2 shows, the homeownership rate among seniors has remained high.

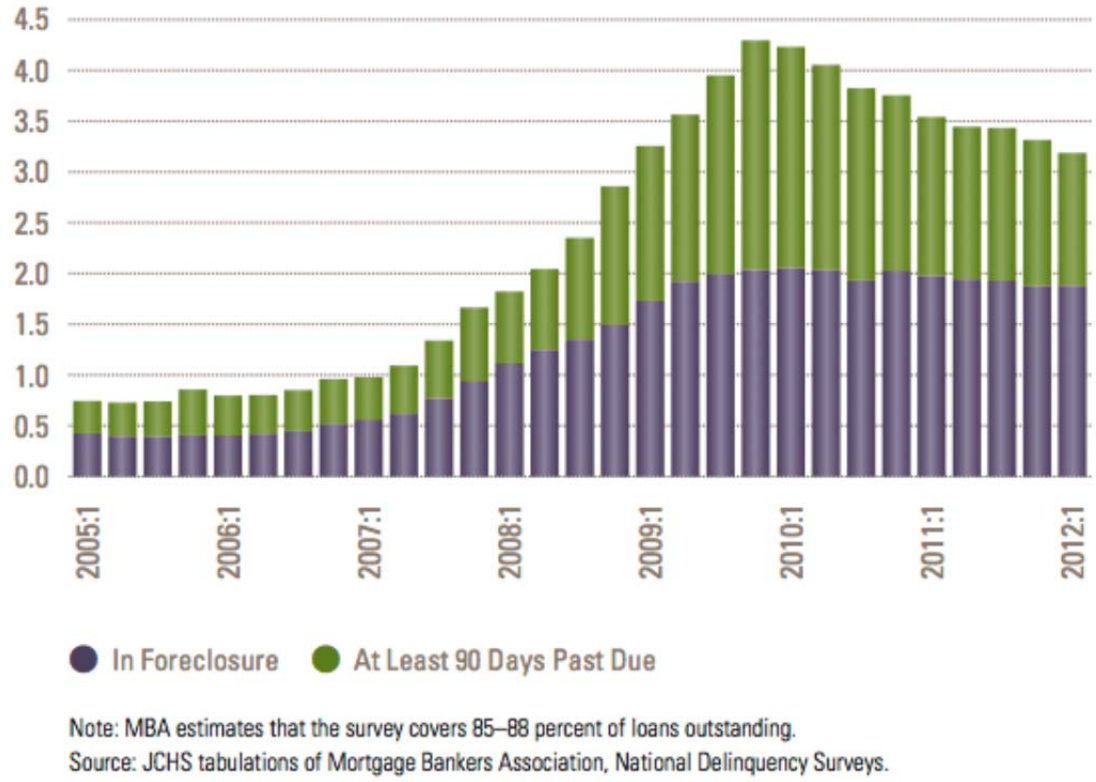
Figure A-2. Change in Homeownership Rate (percentage points) by age group, 1982-2011.



Source: The State of The Nation's Housing, 2012, The Joint Center for Housing Studies of Harvard University, p. 3. http://www.jchs.harvard.edu/research/state_nations_housing

The number of delinquent loans or home foreclosures has begun to decrease, although a large number of homes remain in foreclosure proceedings. As Figure A-3 shows, the number of loans 90 days or more delinquent decreased since its peak in late 2009. At the end of 2009, 5.1% of mortgages were 90 days or more delinquent; by the first quarter of 2012, the percent had fallen to 3.1%. Over the same period, the backlog of loans in the foreclosure process decreased only slightly, from 4.6% to 4.4% of mortgages. Delinquencies and foreclosures are concentrated by state, with California, Florida, Nevada, and Arizona hit particularly hard. Between early 2007 and the first quarter of 2010, 6.1 million foreclosure notices were issued on first-lien loans. In early 2010, the number of loans in the foreclosure process was 2.1 million, which was nearly four times the number of foreclosures in process three years earlier.

Figure A-3. Number of loans (millions) in foreclosure proceedings



Source: State of the Nation's Housing, 2012. The Joint Center for Housing Studies of Harvard University, p. 3. http://www.jchs.harvard.edu/research/state_nations_housing

Since 2008, foreclosures have contributed to sharp decrease in housing prices, leaving roughly 11.1 million homeowners underwater on their mortgages (where the value of the house is less than the owner's mortgage). These loans equate to $717 billion in negative equity. As with home foreclosures, underwater mortgages are concentrated geographically. In Nevada, 61% of mortgages are underwater, the highest rate in the country. Florida and California account for more than a third of the nation's underwater mortgages.

LONG RUN TRENDS IN HOME OWNERSHIP AND DEMAND

The long-term market outlook shows that homeownership is still the preferred tenure. While further homeownership gains are likely during the next decade, they are not assured. Additional increases depend, in part, on the effect of foreclosures on potential owner's ability to purchase homes in the future, as well as whether the conditions that have led to homeownership growth can be sustained. The Urban Land Institute forecasts that homeownership will decline to the low 60 percent range by 2015.[52]

The Joint Center for Housing Studies indicates that demand for new homes could total as many as 12 million units nationally between 2010 and 2020. The location of these homes may be different than recent trends, which favored lower-density development on the urban fringe and suburban areas. The Urban Land Institute identifies the markets that have the most growth potential are "global gateway, 24-hour markets," which are primary costal cities with international airport hubs (e.g., Washington D.C., New York City, San Francisco, or Seattle). Development in these areas may be nearer city centers, with denser infill types of development.[53]

The Joint Center for Housing Studies also indicates that demand for higher density housing types exists among certain demographics. They conclude that because of persistent income disparities, as well as the movement of the echo boomers into young adulthood, housing demand may shift away from single-family detached homes toward more affordable multifamily apartments, town homes, and manufactured homes.

[52]John McIlwain, "Housing in America: The Next Decade," Urban Land Institute

[53] Urban Land Institute, "2011 Emerging Trends in Real Estate" and "2012 Emerging Trends in Real Estate"

HOME RENTAL TRENDS

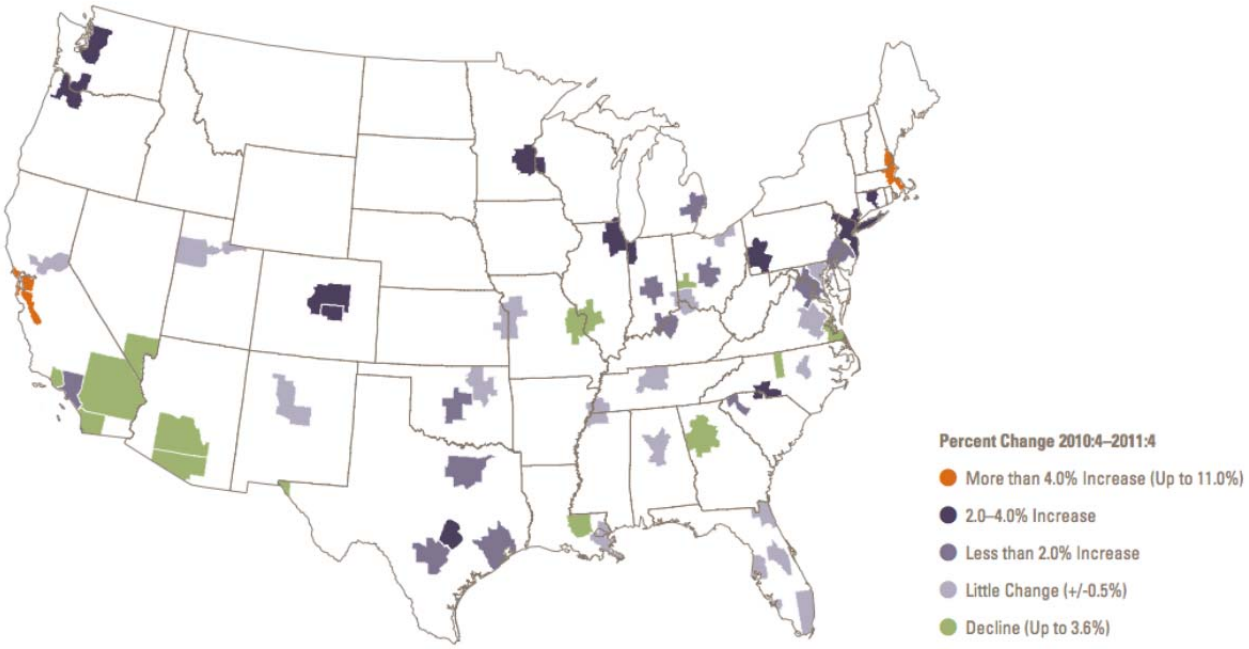
Nationally, the rental market continues to experience growth, adding 1.0 million rental households in 2011 and averaging 730,000 new rental households per year from 2005 through 2011. After an increase in the overall rental vacancy rate from 9.6% in 2007 to 10.6% in 2009, the rental market has begun to tighten. The rental vacancy rate fell to 9.5% in 2011.

Over the longer term, the Joint Center for Housing expects demand for rental housing to continue to grow. Minorities will be the largest driver of rental demand, because they are on average younger and less likely to own homes than whites. In 2011, minorities accounted for 46% of rental households but only 30% of all households. From 2004 to 2011, minorities contributed 59% of the growth in number of rental households. The foreign-born share of renter-occupied households increased from 17.4% in 2000 to 19.6% in 2009 and the number of Hispanic renters has increased from 1.9 million in 1980 to 7.0 million in 2009. Demographics will also play a role. Growth in young adult households will increase demand for moderately priced rentals, in part because the oldest echo boomers reached their late-20s in 2010. Meanwhile, growth among those between the ages of 45 and 64 will lift demand for higher-end rentals. Given current trends in home prices and interest rates, conditions will become increasingly favorable for rental markets in the coming years.

The Joint Center for Housing Studies highlights two recent trends in rental demographics: growth in demand among married couples and higher-income households. Increasingly, married couples rent rather than own. From 2006-2011, married couples accounted for 50% of the growth in renter households. In the last five years, the number of higher-income households renting has also increased. It is unclear whether these trends are solely a result of the foreclosure crisis and the Great Recession or if they will persist as the economy improves.

Despite decades of growth and the recent decline in vacancy rates, rents have failed to keep pace with inflation. Between the peak in late 2008 and April 2010, inflation-adjusted rents fell by 2.9%. Between 2010 and 2011, inflation-adjusted rents decreased by 1.5%. Although falling rents show signs of a weak rental housing market, they do help to alleviate pressure on low-income households struggling to pay their rent. However, the upper-end of the rental market is showing widespread increases in rent. In 2011, inflation-adjusted rent increased in nearly 60% of the markets tracked by MPF Research (Figure A-4). Rent increases were largest in the West (5.2%) and the Northeast (6.5%).

Figure A-4. Inflation-adjusted change in rents, fourth quarter 2010 to fourth quarter 2011 in 64 metro areas



Notes: Rents are adjusted for inflation by the CPI-U for All Items. Estimates are based on a sample of investment-grade properties.
Source: JCHS tabulations of MPF Research data.

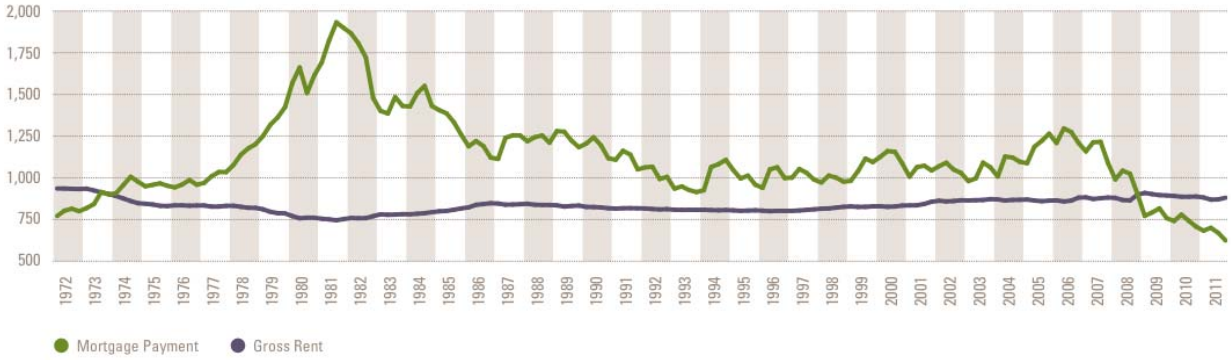
Source: State of the Nation's Housing, 2012. The Joint Center for Housing Studies of Harvard University, p. 25. http://www.jchs.harvard.edu/research/state_nations_housing.
Note: MPF Research data looks at professionally managed properties with 5 or more units in 64 metro areas.

TRENDS IN HOUSING AFFORDABILITY

House prices declined since the height of the housing bubble. Between October 2005 and March 2010, the median house price decreased by 26 percent. The price declines were about 50% greater than price declines at the high end of the housing market. The median home sales price dropped from 4.7 times the median household income in 2005 to 3.4 times median household income in 2009.

Figure A-5 shows a comparison of monthly housing costs for mortgage payments and gross rent, in 2011 dollars. For the first time since the early 1970's, monthly housing costs for mortgages on the typical home are less costly than the average rental unit.

Figure A-5. Monthly housing costs for mortgage payment and gross rent costs, 2011 dollars



Source: State of the Nation's Housing, 2012. The Joint Center for Housing Studies of Harvard University, p. 4. http://www.jchs.harvard.edu/research/state_nations_housing.

Despite widespread falling house prices, affordability problems have not improved significantly. A median-priced single-family home under conventional terms in 2007 (10% down payment and 30-year fixed rate loan) only costs $76 per month and $1,000 down payment less than a house bought in 2006, the year in which the sales prices of single-family homes were at their highest real price in history. Only 17 of the 138 National Association of Realtors-covered metropolitan areas have lower costs in 2007 than they did in 2003 when interest rates were bottomed out.

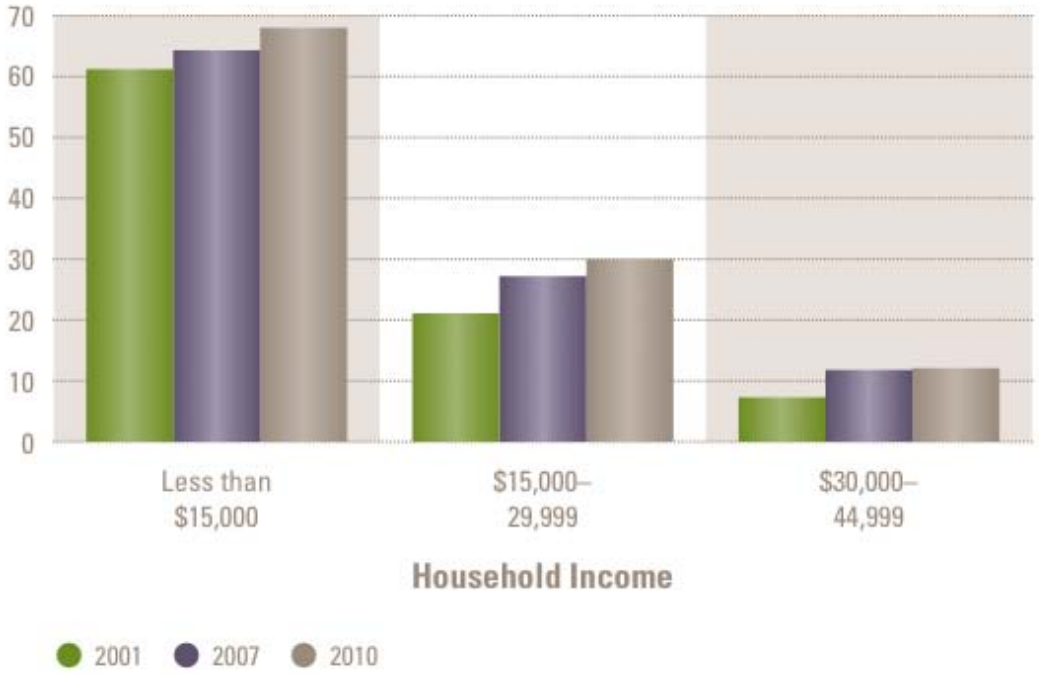
In 2010, more than one-third of American households spent more than 30% of income on housing, and 18% spent upwards of 50%.[54] The number of severely cost-burdened households (spending more than 50% of income on housing) increased by 6.4 million households from 2001 to 2010, to a total of nearly 20.2 million households in 2010. In 2010, there was a 5.1 million unit gap between supply and demand for affordable housing units.

Figure A-6 shows that lower income households are more likely to be severely cost-burdened and that the share of households with severe cost-burden increased

[54] 2010 American Community Survey, Table B25091 and Table B25070.

between 2001 and 2010. The number of severely cost-burdened households earning under $15,000 annually increased by about 1.5 million households between 2007 and 2010, which was nearly twice the increase between 2001 and 2007. With low-wage jobs increasing and wages for those jobs stagnating, affordability problems will persist even as strong fundamentals lift the trajectory of residential investment.

Figure A-6. Share of households with severe cost burden by household income, 2001, 2007, and 2010



Source: State of the Nation's Housing, 2012. The Joint Center for Housing Studies of Harvard University, p. 28. http://www.jchs.harvard.edu/research/state_nations_housing.

The Joint Center for Housing Studies points to widening income disparities, decreasing federal assistance, and depletion of inventory through conversion or demolition as three factors exacerbating the lack of affordable housing. While the Harvard report presents a relatively optimistic long-run outlook for housing markets and for homeownership, it points to the significant difficulties low- and moderate-income households face in finding affordable housing and preserving the affordable units that do exist.

According to the Joint Center for Housing Studies, these statistics understate the true magnitude of the affordability problem because they do not capture the tradeoffs people make to hold down their housing costs. For example, these figures exclude people who live in crowded or structurally inadequate housing units, some 2.5 million households in 2010. They also exclude the growing number of households that move to locations distant from work where they can afford to pay for housing, but must spend more for transportation to work. Among households in the lowest expenditure quartile, those living in affordable housing spend an average of $100 more on transportation per month in 2010 than those who are severely housing cost-burdened. With total average monthly outlays of

only $1,000, these extra travel costs amount to 10 percent of the entire household budget.

DEMOGRAPHIC TRENDS IN HOUSING PREFERENCE

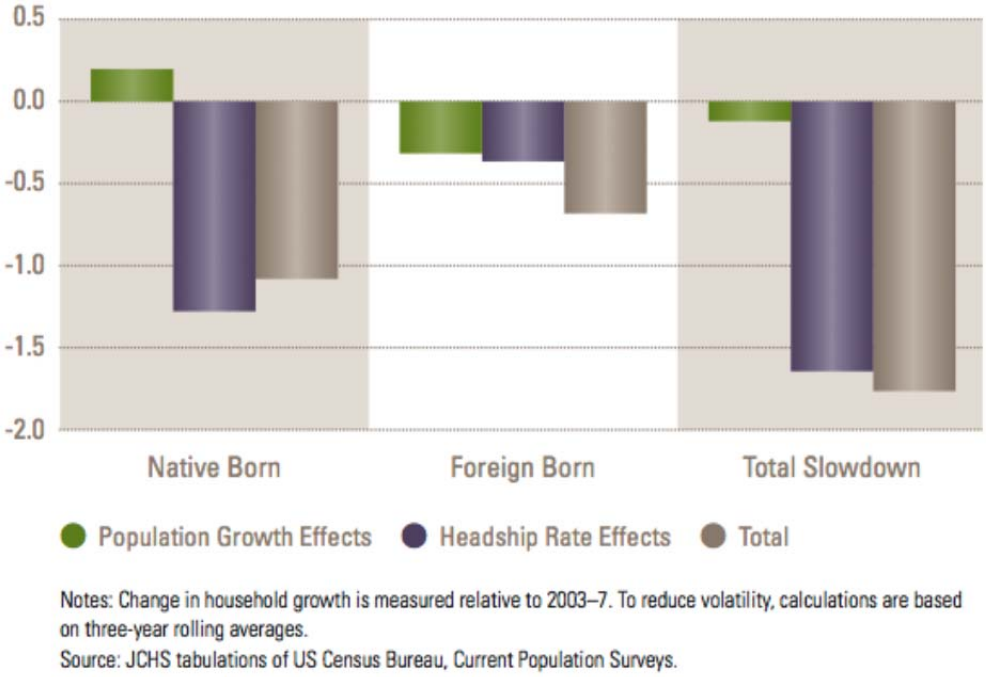
The demographic changes likely to affect the housing market and homeownership are:

- Immigrants and their descendants, who are a faster growing group than other households in the U.S.
- The aging of the baby boomers, the oldest of whom are in their late-60's in 2012.
- Housing choices of younger baby boomers, who are in their late 40's and early 50's in 2010
- The children of baby boomers, called the echo boomers, who range from their late teens to late twenties in 2012[55]

According to the Joint Center for Housing Studies, immigration will play a key role in accelerating household growth over the next 10 years. About 40% of the fall-off in household growth between 2007 and 2011 was due to a drop in immigration (Figure A-7). Immigrants have traditionally comprised a growing share of young adults and children in the United States, but the number of foreign-born households under the age of 35 decreased by 338,400 between March 2007 and March 2009, compared to just 2,100 native-born households. The difficulty in assessing immigration during a recession results in an unclear picture of future housing demand. Deportations, emigration, and a weak US economy have all contributed to lower household formation among foreign-born non-citizens.

[55] Urban Land Institute, "2011 Emerging Trends in Real Estate"

Figure A-7. Contributions to slower household growth, 2007-2011, native-born and foreign-born populations (millions of households)



Source: State of the Nation's Housing, 2012. The Joint Center for Housing Studies of Harvard University, p. 13. http://www.jchs.harvard.edu/research/state_nations_housing

The lower rate of household formation by the native-born population accounts for about 60% of the current slowdown in household growth (Figure A-7). Delayed household formation among the under-25 and 25-34 age groups is the strongest driver. More echo boomers are living with their parents; the share of under-25 year olds and 25-34 year olds living with their parents increased by 2.7 percentage points between 2006 and 2010. Headship rates among echo boomers are predicted to increase as the economy improves and as they age into older adulthood. The echo boomer generation, more populous than the baby boomers, is expected to be the primary driver of new household formation over the next twenty years.

The Joint Center for Housing Studies suggests that an aging population, and of baby boomers in particular, will drive changes in the age distribution of households in all age groups over 55 years. A recent survey of baby boomers showed that more than a quarter plan to relocate into larger homes and 5% plan to move to smaller homes.

The younger baby boomers face challenges resulting from the decrease in housing values, which has left many households with mortgages that are higher than the worth of the house. It may take years for the value of these houses to equal or exceed the value of the mortgage. Second home demand among upper-income homebuyers of all ages also continues to grow, many of whom may be younger baby boomers. The ability to purchase second homes may be negatively affected by diminished earnings and lack of equity in primary homes.

People prefer to remain in their community as they age.[56] The challenges that seniors face as they age in continuing to live in their community include: changes in healthcare needs, loss of mobility, the difficulty of home maintenance, financial concerns, and increases in property taxes.[57] Not all of these issues can be addressed through housing or land-use policies. Communities can address some of these issues through adopting policies that:

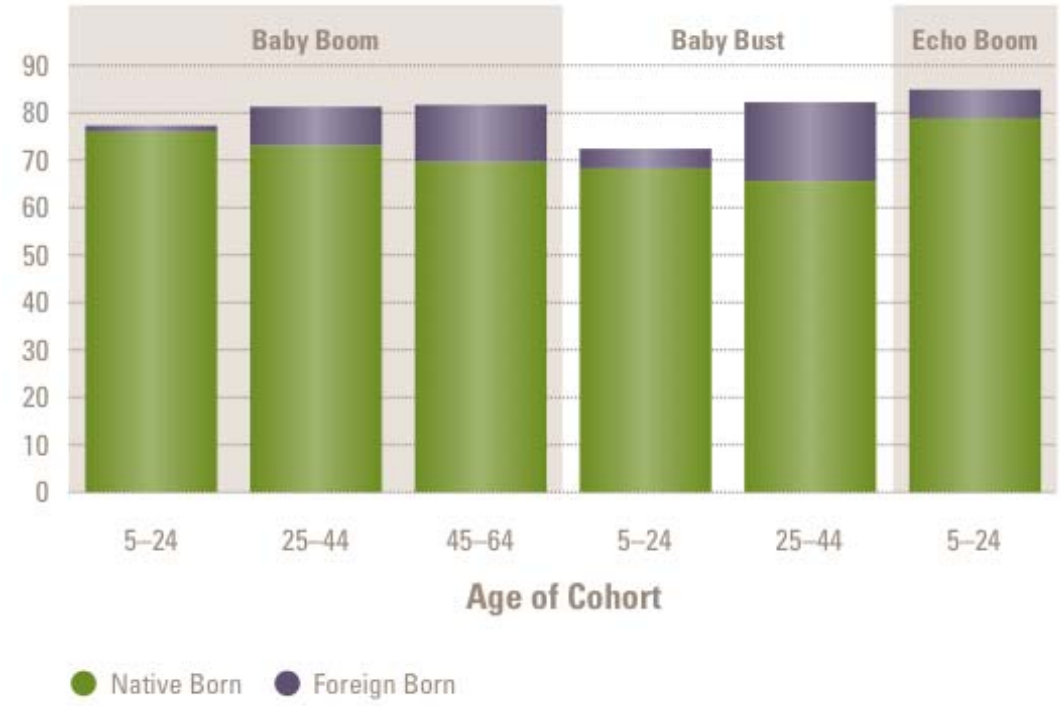
- Diversify housing stock to allow development of smaller, comparatively easily maintained houses in single-family zones, such as single story townhouses, condominiums, and apartments.
- Allow commercial uses in residential zones, such as neighborhood markets.
- Allow a mixture of housing densities and structure types in single-family zones, such as single-family detached, single-family attached, condominiums, and apartments.
- Promote the development of group housing for seniors that are unable or choose not to continue living in a private house. These facilities could include retirement communities for active seniors, assisted living facilities, or nursing homes.
- Design public facilities so that they can be used by seniors with limited mobility. For example, design and maintain sidewalks so that they can be used by people in wheel chairs or using walkers.

Figure A-8 shows that the largest generation of people in the U.S. is the Echo Boomers, with about 85 million people in 2010. The Echo Boom generation is likely to grow even larger as new immigrants arrive. The oldest Echo Boomers turned 25 in 2010 and are beginning to form households. Echo Boomers will be the primary driver of growth in new households over the next twenty years.

[56] A survey conducted by the AARP indicates that 90% of people 50 years and older want to stay in their current home and community as they age. See http://www.aarp.org/research.

[57] "Aging in Place: A toolkit for Local Governments" by M. Scott Ball.

Figure A-8. Number of persons by generation by age cohort, (millions of persons)



Source: State of the Nation's Housing, 2012. The Joint Center for Housing Studies of Harvard University, p. 16. http://www.jchs.harvard.edu/research/state_nations_housing

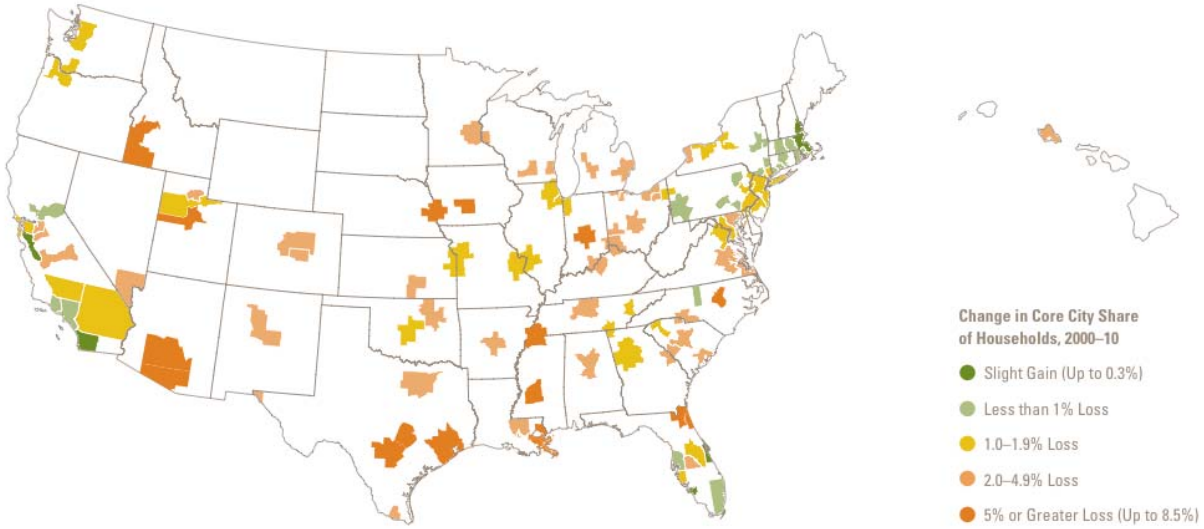
It is unclear what housing choices the echo boomers will make. Some studies suggest that their parents' negative experience in the housing market, with housing values dropping so precipitously and so many foreclosures, will make echo boomers less likely to become homeowners. In addition, high unemployment and underemployment may decrease echo boomers' earning power and ability to save for a down payment. It is not clear, however, that echo boomers' housing preferences will be significantly different from their parents over the long run. A 2011 survey of housing preferences found that 86% of renters aged 18-34 believe that they will eventually become homeowners.[58]

[58] Fannie Mae National Housing Survey, late 2011. Cited in The State of the Nation's Housing 2012, Joint Center for Housing Studies.

TRENDS IN HOUSING CHARACTERISTICS

Figure A-9 shows that, with few exceptions, suburban and other outlying areas grew faster than core cities during the 2000's.The number of households living in core cities decrease in 28 of the largest 100 metro areas and was essentially flat in nine other metro areas. The number of households increased in about one-third of large metro areas.

Figure A-9. Change in share of households located in core cities, major metropolitan areas, 2000 to 2010



Source: State of the Nation's Housing, 2012. The Joint Center for Housing Studies of Harvard University, p. 16. http://www.jchs.harvard.edu/research/state_nations_housing

The U.S Bureau of Census Characteristics of New Housing Report presents data that show trends in the characteristics of new housing for the nation, state, and local areas. Several long-term trends in the characteristics of housing are evident from the New Housing Report:

- Larger single-family units on smaller lots. Between 1990 and 2011 the median size of new single-family dwellings increased 17%, from 1,905 sq. ft. to 2,227 sq. ft. nationally and 11% in the western region from 1,985 sq. ft. to 2,199 sq. ft. Moreover, the percentage of units under 1,400 sq. ft. nationally decreased from 16% in 1999 to 13% in 2011. The percentage of units greater than 3,000 sq. ft. increased from 17% in 1999 to 26% of new one-family homes completed in 2011. In addition to larger homes, a move towards smaller lot sizes is seen nationally. Between 1990 and 2011 the percentage of lots under 7,000 sq. ft. increased from 27% of lots to 33% of lots.
- Larger multifamily units. Between 1999 and 2011, the median size of new multiple family dwelling units increased by 8% nationally and in the western region. The percentage of new multifamily units with more than 1,200 sq. ft. increased from 28% in 1999 to 38% in 2011 nationally and from 26% to 35% in the western region.

- More household amenities. Between 1990 and 2011 the percentage of single-family units built with amenities such as central air conditioning, 2 or more car garages, or 2 or more baths all increased. The same trend in increased amenities is seen in multiple family units.

Over the last four years, the trend towards larger units with more amenities faltered. Between 2007 and 2011, the median size of new single-family units has decreased by 2% nationally to 2,227 square feet. The western region has seen a 4% decrease in median size of new single-family units, to a median of 2,199 square feet. In addition, the share of new units with amenities (e.g., central air conditioning, fireplaces, 2 or more car garages, or 2 or more bath) all decreased slightly.

It is unclear if these changes in unit size and amenities signal a long-term change in demand for housing or if these changes are a response to the current housing market turmoil. Numerous articles and national studies suggest that these changes may indicate a long-term change in the housing market, resulting from a combination of increased demand for rental units because of demographic changes (e.g., the aging of the baby boomers, new immigrants, and the echo-boomers), as well as changes in personal finance and availability of mortgages.[59]

These studies may be correct and the housing market may be in the process of a long-term change. On the other hand, long-term demand for housing may not be substantially affected by the current housing market. The echo-boomers and new immigrants may choose single-family detached housing and mortgages may become easier to obtain.

Studies and data analysis have shown a clear linkage between demographic characteristics and housing choice. This is more typically referred to as the linkage between life-cycle and housing choice and is documented in detail in several publications. Analysis of data from the Public Use Microsample (PUMS) in the 2000 Census helps to describe the relationship between selected demographic characteristics and housing choice. Key relationships identified through this data include:

- Homeownership rates increase as income increases;
- Homeownership rates increase as age increases;
- Choice of single-family detached housing types increases as income increases;
- Renters are much more likely to choose multiple family housing types than single-family; and
- Income is a stronger determinate of tenure and housing type choice for all age categories.

[59] These studies include “Hope for Housing?” by Greg Filsram in the October 2010 issue of Planning and “The Elusive Small-House Utobia” by Andrew Rice in the New York Times on October 15, 2010.