

Appendix A

Growth Scenarios for Homer

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prepared by:
Steve Colt

Institute of Social and Economic Research
University of Alaska Anchorage

Introduction

This section presents data showing how Homer has grown since 1960. These data are then combined with regional and statewide economic projections developed by ISER to arrive at plausible growth rates for population and employment in Homer through 2030.

Homer is a small community not tied directly to a major urban center in the way that, for instance, Mat-Su places are tied to Anchorage. Homer's future growth will be driven by a combination of 1) what happens to the Alaska economy and 2) specific factors that are more or less independent of what is happening in the Alaska economy. These include things like the prices for the mix of fish species that Homer fishers tend to catch, the growth of specific visitor attractions similar to the Islands and Oceans center, and the location decisions of major retailers or other businesses. Perhaps most important of all, and most difficult to forecast, is the growth of Homer as a quality of life community that is attracting wealthy people who want to live there. This growth will depend partly on the actions that citizens take to maintain the current attractive qualities, and it will probably also depend on more mysterious attributes that economists call "reputation effects." If Homer remains a "hot" residential destination, then it can grow, at least in some dimensions, more or less independently of changes in the conventional "economic base."

The data presented below show that Homer's growth seems to track changes in the Kenai Peninsula Borough (KPB) economy. By exploiting this relationship, ISER economic projections for Alaska and for the KPB can be used as a benchmark for projecting future growth in Homer. A high growth scenario is also presented that is consistent with projections used in the recently adopted Homer Water and Sewer Master Plan (2006).

Historical Growth

Homer underwent a "growth spurt" by annexing part of Diamond Ridge and all of Miller's Landing in 2002. This was geographic growth, not economic growth. Table 6 provides a more consistent data set by combining these three areas into one.

Table 6. Historical Population Growth

	1980	1990	2000	2006	avg growth 80-90	avg growth 90-00	avg growth 00-06
Homer/Miller Ldg/Diamond Ridge	2,790	4,821	5,822	6,144	5.6%	1.9%	0.5%
Greater Homer	3,721	7,466	9,701	10,128	7.2%	2.7%	0.4%
KPB	25,282	40,486	49,691	51,350	4.8%	2.1%	0.3%
Alaska	401,851	550,043	626,931	670,053	3.2%	1.3%	0.7%

Note: "Greater Homer" includes Homer City, Miller's Landing, Diamond Ridge (all of it), Fritz Creek, Kachemak City, and Anchor Point.

Source: U.S. Census (1980-2000), Alaska Dept. of Labor (2006).

When this adjustment for the changing geography is made, it can be seen that Homer's fastest economic growth occurred in the 1980s. Population growth then slowed down and during the past six years both Homer and "Greater Homer" grew more slowly than Alaska, and just a bit faster than the Borough.

Figure 7. Population Growth Rates

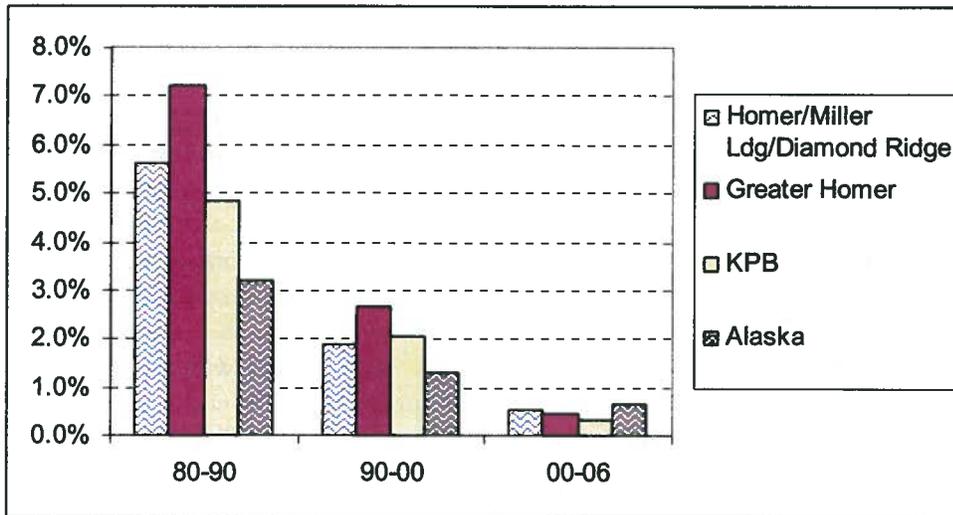
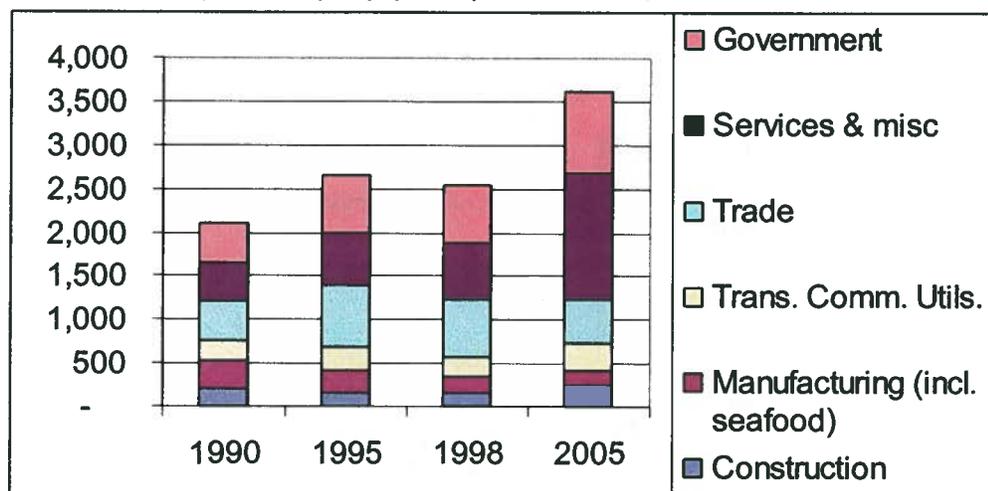


Table 7 shows historical wage and salary employment growth for the region. (Wage and salary employment excludes fish harvesters and sole proprietor businesses.) Homer employment surged upward at more than 5% per year after 1998. A small part of this increase may be due to annexation, but the main reason appears to be the growth in tourism. The services category of employment more than doubled between 1998 and 2005. There were more than 500 full-time equivalent workers in the "accommodations and food services" sub sector alone as of 2005. (Because new classifications were adopted in 2002, it is not possible to compare this figure with prior years.)

Table 7. Historical Wage and Salary Employment Growth

	1990	1995	1998	2005	avg growth 90-98	Homer avg growth 98-05
Construction	214	163	165	248	-3.2%	6.0%
Manufacturing (incl. seafood)	304	242	167	163	-7.2%	-0.3%
Trans. Comm. Utils.	245	288	229	319	-0.8%	4.8%
Trade	450	696	664	501	5.0%	-3.9%
Services & misc	426	602	654	1,440	5.5%	11.9%
Government	463	655	660	937	4.5%	5.1%
Total	2,102	2,646	2,539	3,608	2.4%	5.1%

Figure 8. Homer Wage and Salary Employment by Sector, 1990-2005



Comparison of Homer to KPB

Clearly Homer cannot simply be tied to the entire State of Alaska when making future projections. However, Homer does seem to track the KPB economy fairly well. This conclusion is based on the following three empirical tests.

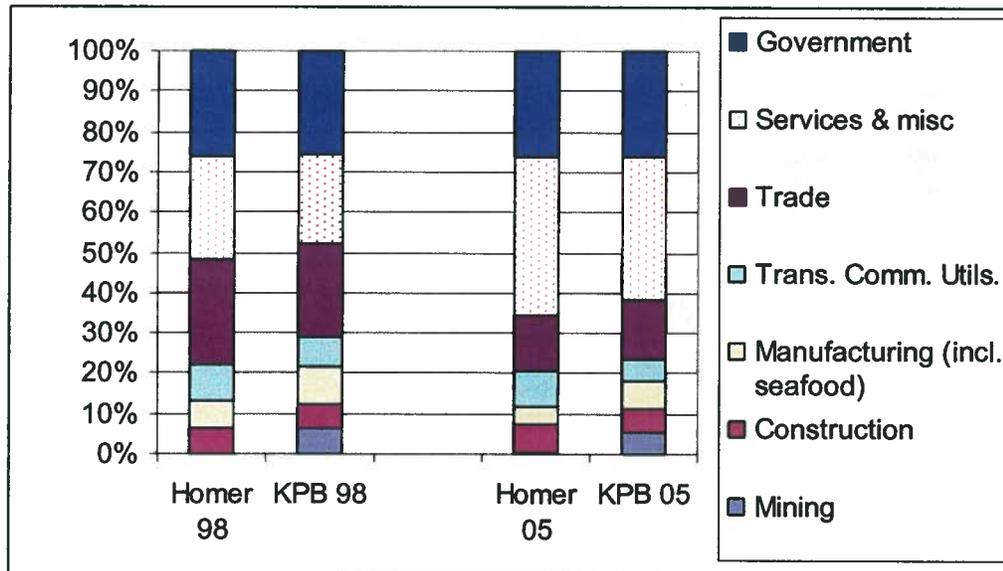
Test 1. Population growth. Data presented above show that Homer population (as measured with Diamond Ridge and Miller’s Landing included) grew at about the same rate as KPB population during the 1990s and during the past 6 years. The rates for 2000 through 2006 are 0.5% for Homer and 0.3% per year for KPB, which are substantially the same.

Test 2. Employment growth and structural change. Table 8 compares employment by broad sector in Homer to employment in the KPB. The broad classifications are necessary because the classification system changed in 2000. The data show that employment in Homer grew much faster than in KPB, with the extra growth concentrated in services.

Table 8. Employment by Sector: Homer versus KPB

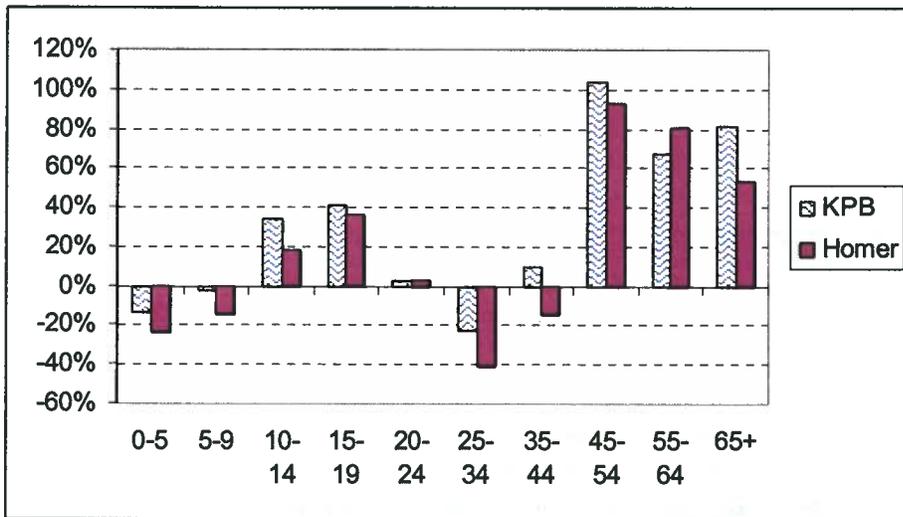
Industry	1998		2005	
	Homer 98	KPB 98	Homer 05	KPB 05
Mining	-	1,096	18	1,005
Construction	165	914	248	1,054
Manufacturing (incl. seafood)	167	1,614	163	1,234
Trans. Comm. Utils.	229	1,199	319	978
Trade	664	3,831	501	2,649
Services & misc	654	3,706	1,422	6,472
Government	660	4,226	937	4,683
Total	2,539	16,586	3,608	18,075
Avg growth, 1998-05	5.1%	1.2%		

Figure 9. Composition of Employment in Homer and KPB



Test 3. Change in age structure. The final test addresses the issue of demographic change and the aging baby boomers. Is Homer “aging” faster than the KPB? This would indicate that KPB projections are less useful for projecting Homer conditions. Figure 10 shows the change in population between 1990 and 2000 for specific age cohorts. These changes are remarkably similar. Unfortunately there is no data by specific age cohort for recent years so it is conceivable that Homer’s age structure no longer matches the KPB structure. However, the match through the 1990s is reassuring.

Figure 10. Comparison of Change in the Age Structures of Homer and KPB between 1990 and 2000



Note: the vertical axis measures the percentage change in the size of each cohort during the decade of the 1990s.

Projections of future growth

These tests show that regional economic projections for the KPB can be used as a good starting point for developing Homer growth scenarios. The data are all consistent with a “model” in which economic growth in Homer – or at least in Greater Homer -- is *at least as high* as the regional growth of the KPB. Due to tourism expansion and the continuing draw of Homer for retirees and footloose businesspeople, a significantly higher growth rate for Homer is still consistent with the regional and statewide growth projected by ISER.

KPB growth projections. In 2005 ISER completed a detailed set of economic projections for Alaska using its econometric model of the Alaska economy. These included regional projections for KPB that are fully consistent with the statewide growth path. The KPB projections are based on a number of specific assumptions about economic development projects. Table 9 shows a summary these assumptions and Table 10 shows the projections for the KPB.

Table 9. Summary of Assumptions Driving the KPB Projections

Industry or Project	BASE case assumption for econometric model
Petroleum	<ul style="list-style-type: none"> *Constant employment on N Slope, at industry HQ, and in Cook Inlet exploration and development. *ANWR not developed *Agrium and LNG plants close by 2010 due to lack of inexpensive gas * North Slope gas development generates 500 annual petroleum jobs starting in 2010
Mining	<ul style="list-style-type: none"> *Greens Creek, Red Dog, Fort Knox, Healy Coal maintain constant employment * Pogo (2006), Kensington (2007), Pebble (2012), Donlin Creek (2015), Beluga Coal (2011) begin production *Other misc. mining increases 4% per year.
Seafood	<ul style="list-style-type: none"> *Constant employment in harvesting and processing
Tourism	<ul style="list-style-type: none"> * Index of tourist visitor expenditures (measuring visitors, days, and real expenditures per visitor day) increases by 5% with tourism employment growth of 3% thru 2025 and then 2%. Tourism-related infrastructure development grows 2% annually thru 2015 and then 1%. This growth applies equally to all regions.
Retiree income	<ul style="list-style-type: none"> *Real income per retiree increases at 0.5% per year. (Statewide average).
Federal government	<ul style="list-style-type: none"> *Military: Kulis closure and realignments under the BRAC process result in loss of 4,200 active duty military and 500 civilian department of defense employees in 2006 thru 2010. *Federal civilian employment continues to increase at long-run rate of 0.25% per year. *Federally funded construction declines slowly after 2008. Knik Arm bridge not constructed. *Federal grants to state governments and nonprofits decline through 2013 then grow with population.
Air Freight	<ul style="list-style-type: none"> *Air freight employment at Anchorage and Fairbanks increases at about 2.5% per year.
Forest Products	<ul style="list-style-type: none"> *Logging and sawmill employment increases at 1% per year. Some new wood products manufacturing develops in Sitka, Ketchikan, and MatSu.
State of Alaska spending	<ul style="list-style-type: none"> *Oil prices and production decline slightly consistent with Dept of Revenue spring 2005 forecast. *North Slope gas brings additional \$200 million per year into State treasury. * State spending per person declines, spending focused on operations rather than capital. *No income tax; Permanent Fund earnings used to fill fiscal gap

Table 10. KPB Base Case Econometric Projections

	WAGE & SALARY EMP (000)	POPULATION (000)	HOUSEHOLDS (000)	REAL PERSONAL INCOME (MILL 03\$)	REAL PER CAP PERSONAL INCOME (MILL 03\$)
2000	17.3	49.7	18.4	\$1,512	\$30,452
2001	17.4	50.1		\$1,541	\$30,740
2002	17.6	50.5		\$1,575	\$30,926
2003	17.7	51.4	19.4	\$1,571	\$30,564
2004	17.9	50.9	19.4	\$1,584	\$31,107
2005	17.6	50.8	19.1	\$1,588	\$31,235
2006	17.4	50.4	19.0	\$1,592	\$31,604
2007	17.2	50.4	19.1	\$1,613	\$32,039
2008	17.2	50.8	19.3	\$1,629	\$32,076
2009	17.0	50.8	19.4	\$1,634	\$32,155
2010	16.9	50.9	19.5	\$1,644	\$32,290
2011	17.0	51.2	19.6	\$1,659	\$32,392
2012	17.1	51.7	19.8	\$1,677	\$32,438
2013	17.1	52.0	20.0	\$1,680	\$32,274
2014	16.9	52.2	20.1	\$1,658	\$31,800
2015	17.0	52.3	20.2	\$1,669	\$31,883
2016	17.1	52.8	20.4	\$1,687	\$31,948
2017	17.2	53.3	20.6	\$1,695	\$31,778
2018	17.3	53.8	20.8	\$1,714	\$31,831
2019	17.5	54.5	21.1	\$1,739	\$31,941
2020	17.7	55.2	21.3	\$1,756	\$31,837
2021	17.8	55.8	21.6	\$1,769	\$31,684
2022	18.0	56.5	21.9	\$1,797	\$31,802
2023	18.3	57.3	22.2	\$1,827	\$31,918
2024	18.5	58.0	22.5	\$1,857	\$32,017
2025	18.7	58.7	22.8	\$1,886	\$32,142
2026	18.9	59.3	23.0	\$1,906	\$32,132
2027	19.1	60.0	23.3	\$1,926	\$32,123
2028	19.3	60.6	23.5	\$1,950	\$32,202
2029	19.5	61.2	23.8	\$1,981	\$32,360
2030	19.7	61.8	24.0	\$2,009	\$32,493

ANNUAL AVERAGE GROWTH RATE

2000-2010	-0.23%	0.24%	0.54%	0.83%	0.59%
2010-2020	0.44%	0.81%	0.93%	0.67%	-0.14%
2020-2030	1.07%	1.14%	1.20%	1.35%	0.20%

2000-2020	0.10%	0.52%	0.74%	0.75%	0.22%
2000-2030	0.42%	0.73%	0.89%	0.95%	0.22%

Low-growth scenario for Homer. Since the population of KPB has already grown slightly faster than the above numbers, it is appropriate to use these KPB “BASE” projections as the foundation of a *Low-growth scenario* for Homer. In fact, there is a sensitivity case associated with the above BASE case that posits more tourism activity, and this case tracks actual growth through 2007 quite well.

In the above KPB projections, population grows faster than employment. This seems unlikely for Homer given the relatively fast pace of employment growth since 2000. Therefore, the *Low-growth scenario* for Homer incorporates slightly faster employment growth through 2020 than the KPB projections.

High-growth scenario for Homer. The City of Homer recently adopted a water and sewer master plan that uses a much higher growth trajectory: 4.5% population growth through 2015 and 3.0% from 2015 through 2025. These growth rates are based on long-run historical trend data and therefore reflect the oil spending boom of the 1980s (as well as prosperous fishing) and the pipeline boom of the 70s. Therefore, they are basically consistent with a *High-growth scenario* that includes some unforeseen strong growth at the regional or, more likely, at the local level.

Table 11. Growth Rates for Homer Growth Scenarios

	2005	2015	2025	2030	Growth Rates		
					2005-2015	2015-2025	2025-2030
Low-growth scenario							
Alaska population (000)	663.3	717.9	822.5	877.3	0.8%	1.4%	1.3%
KPB population	49,691	52,300	58,700	61,800	0.5%	1.2%	1.0%
KPB wage-salary employment	18,075	17,000	18,700	19,700	-0.6%	1.0%	1.0%
Homer population	5,393	5,676	6,371	6,707	0.5%	1.2%	1.0%
Homer employment	3,608	4,619	5,204	5,482	2.5%	1.2%	1.0%
High-growth scenario							
Alaska population (000)							
KPB population	NA - high scenario not based on regional projections						
KPB wage-salary employment	NA - high scenario not based on regional projections						
Homer population	5,393	8,375	11,256	12,427	4.5%	3.0%	2.0%
Homer employment	3,608	5,603	7,530	8,314	4.5%	3.0%	2.0%

Conclusion

The available historical data suggests that Homer’s growth has been reasonably consistent with the growth of the KPB. Therefore, a Low-growth scenario for Homer has been developed from recent econometric projections of the KPB economy that are, in turn, based on a detailed model of the statewide economy. The High-growth scenario is consistent with long-run historical trends and with the water and sewer Master Plan.