Laramie County and Colorado Worker Commuting Pattern Analysis

A Report to the Cheyenne Metropolitan Planning Organization



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Introduction

Research & Planning (R&P) contracted with the Cheyenne Metropolitan Planning Organization (MPO) in 2007 to study Laramie County worker commuting flows. The project's purpose was to determine not only the amount of commuting into and out of Laramie County, but also the sources and destinations of commuters. Additionally, R&P obtained geographic information for Colorado residents who commute into Wyoming for work. MPO intends to use the information and analysis presented in this report to determine the feasibility of a commuter bus service along the Front Range to transport those who live in Colorado and work in Laramie County to their jobs more efficiently. What follows is a summary of the project. The commuting pattern data modeling strategy, additional reports and technical documentation can be found at <u>http://doe.state.wy.us/lmi/commute.htm</u>.

Time Line and Methodology

The initial agreement between R&P and MPO began through a Memorandum of Understanding (MOU) during summer 2007 (Wyoming Department of Employment, 2007). At this time, MPO served as an intermediary between R&P and the State of Colorado to secure Colorado driver's license data for people who work in Wyoming (Colorado Department of Revenue, 2008). The Colorado driver's license data provides the residential street addresses for individuals who reside in Colorado. From summer 2007 until February 2008, R&P worked with Colorado officials and staff to determine the required data elements, number of downloads required, as well as input and output file layouts.

The flow of the data exchange and processing used in this study is described in Figure 1. Definitions for commonly used terms are shown in Appendix A. An important initial step was to obtain latitude and longitude for workers' residential addresses. R&P utilized the services of the Bureau of Labor Statistics to accomplish this (see Residency Assignment step, Figure 1; Bureau of Labor Statistics, n.d.). In order to protect individuals' confidentiality as mandated by Wyoming and U.S. statutes, social security numbers (SSNs) were removed prior to file transfer to the Bureau of Labor Statistics (BLS). In their place, an unrelated sequence number was attached.

After the geographic coordinates for the residential location were obtained, they could be compared to the coordinates of work locations in the Wyoming Employer Quarterly Master File (EQUI; Bureau of Labor Statistics and Wyoming Department of Employment, Research & Planning, n.d.). Joining the geographically coded Wyoming and Colorado worker files with the Wyoming EQUI data allowed R&P to calculate the distance between the assigned

residence location and probable work locations.¹ Using the final residence/work location parings, we calculated commuting flow rates using several variables (e.g., age, sex, employer industry, wage levels, county of residence or work, and tenure). These commuting measures were used to create a mathematical profile of commuting behavior. Commuting may occur daily, weekly or along some other period.

Results

Figure 2 displays selected major commuting flow components for Laramie County. The top line (work and live in Laramie County) refers to the right vertical axis while the remaining flow components refer to the left vertical axis. The number of intracounty transactions (see Appendix A for definition) increased from 28,508 in first quarter 2000 (2000Q1) to 34,628 by fourth quarter 2007 (2007Q4).

The next lower line on Figure 2 represents commuting inflow to Laramie County by workers who are not residents of Colorado or Wyoming. This flow component was relatively steady until mid-decade when large increases occurred. Although the rate of increase has slowed somewhat, an upward trend in 2007 is still seen. Further investigation (see Table 3) showed the majority of the increase in this inflow component was due to former Wyoming residents (based on their state of origin, see Appendix A for definition) returning to the state for work.

The flow of Wyoming residents who commute to Laramie County peaked in 2005 and then began to decline. This may be due to wage competition induced by Wyoming's current economic expansion driven by minerals and related industries offering relatively higher wages. The result is that at least some workers have been drawn away from Laramie County to other locations in the state.

The bottom line of the chart shows the commuting inflow of Colorado residents to Laramie County since 2000Q1. Although this is the smallest component of inflow, it grew from 1,209 transactions in 2000Q1 to 3,314 by 2007Q4, or an average annual compound rate of 13.9%. As Figure 2 illustrates, the inflow from Colorado was nearly equal to the total inflow from other Wyoming counties by 2007Q4.

¹ More than one probable work location exists in many cases because employers report multiple operating units for their respective Unemployment Insurance accounts. Once we calculate the distances to each probable work location, a statistical algorithm then assigns the most likely pairing of residence and work location for each record in a particular quarter primarily based on distance.

We identified the counties that contributed the most to Laramie County inflow in Table 1.² Historically, Albany County and Natrona County constituted the largest components of flow from within the state. The next lower section of the table highlights the Colorado counties providing the most commuters into Laramie County. Locales along the Front Range (e.g., Weld, Larimer, Adams, Denver, El Paso, Arapahoe, Douglas, Jefferson, Pueblo, and Boulder counties) are the largest contributors. These 10 Colorado counties comprised 89.4% of the commuting from Colorado in 2007Q4. The final section of Table 1 illustrates the amount of commuting into Laramie County by workers who were not residents of either Colorado or Wyoming. The numbers shown on this line also appear in Figure 2.

Table 2 shows the inflow to Laramie County by industry, regardless of residency. Construction, Leisure & Hospitality, Retail Trade and Professional & Business Services brought 56.7% of total commuters to the county. The inflow rates for Construction, Retail Trade and Leisure & Hospitality all increased substantially toward the end of the series. Since workers in Retail Trade and Leisure & Hospitality on average earn comparatively low wages, projected fare estimates may need to be lower.

Table 3 helps identify from which states workers came (other than Colorado or Wyoming) by using the state-of-origin methodology (SOO; see Appendix A). Using this methodology, we see that most of the people not residing in Wyoming or Colorado but working in Laramie County were returning former state residents. In fact, 27.8% of these workers in 2007Q4 had Wyomingissued SSNs. Although the top 12 states of origin were mostly Wyoming neighbors (e.g., Colorado, Utah, Montana, South Dakota, and Nebraska), several other states such as California, Texas, New York, Michigan, and Illinois were prominent as well.

Tables 4 and 5 show the commuting outflows from Laramie County by geography and industry. Table 4 shows the most common destinations for people living in Laramie County but commuting out for work were, Albany, Natrona, and Campbell counties in 2007Q4. The three industries drawing the most Laramie County residents to other counties for work included Construction, Leisure & Hospitality, and Professional & Business Services. It may seem odd that the industries which import the most workers also export the most workers. However, several factors including job availability, pay rates, commuting cost and standard of living all affect worker decisions regarding where they live and work. One point to consider is that a shuttle service could not only serve to bring workers to Laramie County, it could transport Laramie County residents who desire to work in Colorado to those locations.

² To conserve space, only data from first quarter 2004 forward are shown in Tables 2, 3, 4, and 5. R&P will post the complete tables to its website <u>http://doe.state.wy.us/lmi</u>.

Conclusion

This project marks the first use of out-of-state driver's license data in the construction of the commuting pattern data model. Results indicated that commuting from the Colorado Front Range to Laramie County increased substantially during the last seven years and may continue to do so as the national economy slows. Given the recent rapid rise in fuel prices and current levels of commuting, the development of some sort of mass transit between the Colorado Front Range communities and Laramie County may be more feasible. Future iterations of the model may well illuminate the negative impact fuel prices have on all types of commuting.

Appendix A: Definitions

Base County – the county whose commuting flows that are being studied. In this case, Laramie County is the base county.

Employer Quarterly Master File (EQUI) – contains a summary of the number of workers covered by Unemployment Insurance, the total wages paid, and the employers' geographic coordinates.

Inflow – the amount of commuting into the base county from another county (e.g., Source County).

Intracounty Commuting – people who work and reside in the same county.

Transaction – each time a worker receives wages from an employer is a transaction. People receiving wages from more than one employer in a quarter would have multiple transactions. The counts shown in the tables and figure are transactions.

Intercounty Commuting – commuting flows between counties.

Outflow – the amount of commuting from the base county to another county (e.g., Target County).

Quarterly Wage Records (Wyoming Department of Employment, n.d.) – details all the people who worked for each employer in a quarter by SSN and their wages. *Source County* – the county that supplies commuting workers for another county.

State of Origin – A worker's state of origin represents where they most likely lived when their SSN was issued. The first three digits of the SSN are the state of origin identifier. For example, people who were issued SSNs while living in Wyoming are generally issued SSNs that begin with "520". *Target County* – the county which receives commuting workers.

References

Bureau of Labor Statistics. (n.d.). Quarterly Census of Employment and Wages Overview. Downloaded June 27, 2008 from <u>http://www.bls.gov/cew/cewover.htm</u>

Bureau of Labor Statistics. (n.d.). Residency Assignment System.

- Colorado Department of Revenue. (n.d.). Colorado Driver's License Database (unpublished raw data).
- Wyoming Department of Employment, Research & Planning. (2007). Memorandum of Understanding with Cheyenne Metropolitan Planning Organization (unpublished document)
- Wyoming Department of Employment, Research & Planning. (n.d.). Quarterly Census of Employment and Wages. (unpublished raw data).
- Wyoming Department of Employment, Research & Planning. (n.d.). Wyoming Wage Records Database. (unpublished raw data).
- Wyoming Department of Transportation. (n.d.). Wyoming Driver's License Database (unpublished raw data).

Figure 1: Commuting Pattern Data Flow Diagram





Figure 2: Laramie County Flow Components (Outflow Excluded)

Prepared by Doug Leonard, Wyoming Department of Employment, Research & Planning, 7/1/2008

County of Residence								Da	te							
county of Residence	2004Q1	2004Q2	2004Q3	2004Q4	2005Q1	2005Q2	2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2007Q2	2007Q3	2007Q4
Albany	753	881	883	826	812	893	913	807	769	852	869	774	767	798	823	824
Big Horn	33	38	42	64	33	34	47	54	25	30	41	46	27	32	40	51
Campbell	97	115	129	129	106	122	141	119	109	107	122	141	122	112	127	113
Carbon	136	147	153	145	124	142	164	149	118	130	120	119	95	123	132	107
Converse	88	100	101	95	97	99	116	95	88	102	112	108	93	118	118	97
Crook	28	36	37	22	23	29	31	19	23	25	21	17	18	28	25	15
Fremont	233	275	299	298	277	300	298	270	214	233	235	240	220	237	263	235
Goshen	262	280	285	271	259	277	286	271	264	296	305	279	290	329	285	280
Hot Springs	34	42	44	37	40	52	45	29	31	45	39	31	33	56	49	39
Johnson	29	28	29	30	27	26	25	23	24	33	30	27	24	26	22	21
Lincoln	61	58	62	55	56	52	42	41	40	49	47	44	39	41	45	42
Natrona	505	541	563	565	478	530	563	567	533	605	657	644	551	616	613	609
Niobrara	22	25	26	21	20	21	22	28	23	34	36	26	24	21	28	18
Park	99	125	133	150	92	94	104	106	73	88	106	107	84	102	106	111
Platte	317	370	375	317	316	390	405	372	369	430	436	380	365	415	419	381
Sheridan	147	156	181	162	150	145	140	123	124	137	142	130	129	133	145	133
Sublette	47	43	49	47	44	45	40	40	37	41	41	40	38	47	45	35
Sweetwater	157	195	199	229	184	210	227	203	154	182	202	156	139	142	156	147
Teton	50	72	57	58	61	75	61	59	49	48	47	54	57	68	65	60
Uinta	68	115	122	77	84	133	133	86	70	107	135	65	70	122	130	88
Washakie	32	40	45	61	35	40	39	51	34	42	49	53	33	59	59	58
Weston	18	24	23	16	15	21	19	23	21	25	23	25	21	20	22	16
Total Wyoming	3,216	3,706	3,837	3,675	3,333	3,730	3,861	3,535	3,192	3,641	3,815	3,506	3,239	3,645	3,717	3,480
Colorado																
Larimer	611	649	682	720	726	794	854	778	765	907	992	953	963	1,074	1,103	1,076
Weld	364	398	376	371	411	459	479	440	493	505	517	502	516	646	774	713
Adams	147	157	181	163	153	166	205	190	195	214	179	193	182	220	216	216
Denver	134	158	148	147	148	156	193	202	181	208	219	211	189	191	219	188
El Paso	101	116	134	122	149	178	201	162	163	185	186	190	203	188	195	184
Arapahoe	121	150	163	161	161	181	186	175	178	189	184	213	193	201	208	183
Jefferson	122	144	133	121	129	155	179	178	177	188	189	191	187	165	173	158
Boulder	79	85	83	89	102	115	126	118	119	134	143	119	111	141	134	126
Douglas	53	57	63	61	67	70	77	70	77	83	78	80	73	83	102	87
Pueblo	29	30	34	36	30	35	49	41	45	54	64	52	48	46	48	33
Top 10 Colorado	1,761	1,944	1,997	1,991	2,076	2,309	2,549	2,354	2,393	2,667	2,751	2,704	2,665	2,955	3,172	2,964
All Other Colorado	212	250	241	218	259	285	313	294	295	325	354	333	304	358	406	350
Total Colorado	1,973	2,194	2,238	2,209	2,335	2,594	2,862	2,648	2,688	2,992	3,105	3,037	2,969	3,313	3,578	3,314
Unknown - Not																
Colorado or Wyoming	5,092	5,619	6,074	5,595	5,078	6,060	7,894	8,131	7,791	8,940	9,126	8,646	8,174	9,662	9,727	8,654
Total	10,281	11,519	12,149	11,479	10,746	12,384	14,617	14,314	13,671	15,573	16,046	15,189	14,382	16,620	17,022	15,448
Total	10,281	11,519	12,149	11,479	10,746	12,384	14,617	14,314	13,671	15,573	16,046	15,189	14,382	16,620	17,022	15,448

Table 1: Commuting Inflows to Laramie County by Residence Location

Inductor		Date														
industry	2004Q1	2004Q2	2004Q3	2004Q4	2005Q1	2005Q2	2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2007Q2	2007Q3	2007Q4
Agriculture, Forestry, & Fishing	76	96	91	88	77	86	99	141	145	149	149	153	164	162	174	168
Mining	21	17	25	18	25	42	62	59	59	70	79	71	44	53	73	72
Construction	1,002	1,158	1,223	1,146	1,009	1,262	1,612	1,772	1,842	2,362	2,007	1,905	1,494	2,344	2,313	1,647
Manufacturing	335	360	357	302	314	355	416	428	424	459	486	455	427	443	462	441
Wholesale Trade	218	201	219	211	182	226	289	289	279	307	302	279	270	274	284	301
Retail Trade	1,503	1,660	1,824	1,824	1,558	1,874	2,215	2,345	1,961	2,078	2,223	2,127	2,048	2,338	2,558	2,470
Transportation, Warehousing & Utilities	502	553	518	456	442	497	538	558	655	652	728	756	735	834	859	812
Information	225	245	241	269	251	245	271	315	308	302	307	322	323	306	318	326
Financial Activities	399	422	421	406	391	438	534	538	520	577	597	579	504	533	564	585
Professional & Business Services	1,477	1,688	1,739	1,819	1,421	1,691	2,043	2,053	1,733	2,140	2,296	2,164	1,956	2,263	2,283	2,137
Education	417	572	529	555	788	843	881	814	846	933	905	853	976	949	921	892
Health Care & Social Assistance	801	782	897	877	928	999	1,235	1,183	1,195	1,248	1,296	1,317	1,342	1,389	1,389	1,359
Leisure & Hospitality	1,901	2,122	2,377	2,045	1,899	2,153	2,623	2,200	2,072	2,407	2,721	2,398	2,257	2,497	2,842	2,507
Other Services	292	337	357	296	295	325	390	350	378	443	476	489	541	789	523	415
State Govt. Public Admin.	1,038	1,211	1,208	1,070	1,074	1,220	1,233	1,090	1,078	1,247	1,238	1,117	1,123	1,249	1,252	1,124
Local Govt. Public Admin.	74	95	123	97	92	128	176	179	176	199	236	204	178	197	207	192
Unknown		•														•
Total	10,281	11,519	12,149	11,479	10,746	12,384	14,617	14,314	13,671	15,573	16,046	15,189	14,382	16,620	17,022	15,448

Table 2: Commuting Inflows to Laramie County by Industry

State of Onigin								Da	ite							
State of Origin	2004Q1	2004Q2	2004Q3	2004Q4	2005Q1	2005Q2	2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2007Q2	2007Q3	2007Q4
WY	1,146	1,322	1,409	1,262	1,183	1,543	2,179	2,312	2,228	2,473	2,580	2,357	2,241	2,507	2,632	2,403
CA	553	619	641	573	523	598	746	783	734	880	848	828	765	910	956	836
CO	252	300	310	315	255	317	414	422	456	492	494	488	471	509	519	503
ТХ	287	310	336	316	287	337	438	474	415	502	511	466	462	642	579	496
NE	267	272	317	293	281	317	409	397	374	428	436	393	393	404	406	392
SD	128	126	132	119	130	143	184	180	171	193	208	215	202	212	198	213
MT	127	119	154	131	129	161	177	190	168	203	220	199	184	197	212	204
IL	130	137	148	149	127	148	206	187	165	205	199	206	195	234	237	198
MI	87	94	101	82	72	92	116	132	123	142	165	165	161	213	252	192
UT	113	144	144	130	117	139	173	186	190	208	191	185	200	220	185	192
NY	103	121	136	129	112	131	149	160	136	143	167	173	166	188	190	178
WA	122	132	144	136	120	130	175	179	160	182	168	176	181	224	213	160
Top 12 States of Origin	3,315	3,696	3,972	3,635	3,336	4,056	5,366	5,602	5,320	6,051	6,187	5,851	5,621	6,460	6,579	5,967
All Other States of Origin	1,777	1,923	2,102	1,960	1,742	2,004	2,528	2,529	2,471	2,889	2,939	2,795	2,553	3,202	3,148	2,687
Total	5,092	5,619	6,074	5,595	5,078	6,060	7,894	8,131	7,791	8,940	9,126	8,646	8,174	9,662	9,727	8,654

Table 3: Laramie County Commuting Inflow by State of Origin

Logation of Work								Da	te							
Location of work	2004Q1	2004Q2	2004Q3	2004Q4	2005Q1	2005Q2	2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2007Q2	2007Q3	2007Q4
Albany	-504	-597	-538	-545	-515	-581	-551	-507	-435	-494	-539	-504	-472	-542	-559	-518
Big Horn	-12	-11	-12	-11	-16	-30	-26	-21	-22	-37	-44	-37	-26	-47	-51	-56
Campbell	-83	-94	-134	-108	-123	-134	-143	-121	-105	-126	-155	-145	-145	-137	-162	-133
Carbon	-69	-85	-93	-86	-81	-84	-90	-85	-77	-77	-87	-87	-82	-79	-94	-90
Converse	-20	-27	-100	-96	-48	-56	-54	-54	-62	-58	-58	-59	-55	-74	-71	-65
Crook	-12	-14	-11	-12	-7	-4	-6	-6	-6	-6	-8	-10	-11	-14	-8	-7
Fremont	-54	-70	-65	-63	-73	-87	-88	-67	-53	-66	-67	-53	-52	-57	-63	-43
Goshen	-48	-78	-102	-84	-59	-65	-60	-63	-42	-46	-43	-55	-58	-54	-48	-61
Hot Springs	-4	-6	-6	-8	-10	-12	-11	-13	-11	-12	-17	-14	-8	-10	-10	-11
Johnson	-9	-11	-10	-11	-7	-8	-10	-8	-9	-12	-15	-10	-9	-7	-9	-10
Lincoln	-17	-14	-15	-20	-6	-8	-13	-20	-23	-21	-17	-20	-15	-25	-29	-24
Natrona	-481	-494	-662	-627	-618	-649	-670	-593	-492	-500	-530	-511	-405	-390	-401	-401
Niobrara	-7	-5	-7	-3	-6	-8	-11	-11	-8	-8	-8	-14	-15	-12	-11	-10
Park	-49	-55	-51	-45	-34	-39	-42	-36	-29	-32	-26	-22	-22	-31	-26	-23
Platte	-81	-95	-85	-103	-88	-123	-103	-96	-92	-110	-93	-97	-98	-116	-105	-96
Sheridan	-47	-50	-46	-40	-47	-57	-64	-48	-45	-52	-60	-60	-54	-57	-69	-55
Sublette	-5	-9	-7	-8	-8	-16	-21	-18	-15	-21	-18	-16	-27	-25	-27	-24
Sweetwater	-83	-101	-93	-92	-83	-86	-115	-111	-95	-107	-114	-100	-103	-92	-98	-101
Teton	-35	-42	-38	-36	-23	-39	-44	-53	-40	-58	-60	-56	-46	-46	-56	-39
Uinta	-162	-156	-168	-156	-37	-40	-52	-41	-31	-39	-49	-31	-16	-13	-13	-15
Washakie	-7	-7	-6	-6	-12	-10	-11	-7	-9	-10	-13	-6	-9	-15	-13	-6
Weston	-9	-10	-7	-7	-5	-5	-11	-10	-11	-14	-12	-13	-10	-16	-18	-14
Unknown Wyoming	701	754	450	470	206	425	220	256	465	470	406	528	570	575	466	505
Alaska	-721	-734	-439	-470	-090	-400	-009	-550	-403	-112		-330	-515	-313	-+00	-303
Colorado	-464	-568	-13	-455	-377	-433	-13	-402		-10	-433	-14	-11	-17		
Idaho	-15	-20	-23	-19	-21	-18	-24	-14	-13	-14	-29	-16	-17	-21		
Montana	-46	-67	-23	-26	-22	-25	-44	-37	-18	-20	-36	-28	-23	-38		
Nebraska	-62	-86	-111	-88	-77	-95	-93	-81	-69	-86	-113	-83	-79	-75		
New Mexico	-24	-27	-32	-21	-38	-24	-20	-25	-28	-21	-30	-27	-28	-22		
Oklahoma			•							•		•				
South Dakota	-9	-17	-24	-17	-15	-20	-29	-14	-15	-30	-28	-14	-17	-17		
Texas	-51	-49			•			•	-94	-89	-112	-110	-92	-111		
Utah	-26	-32	-38	-20	-24	-27	-42	-40	-40	-44	-42	-30	-47	-49		
Total	-3,221	-3,658	-3,407	-3,288	-2,882	-3,226	-3,229	-2,963	-2,846	-3,065	-3,373	-3,249	-3,097	-3,271	-2,407	-2,307

Table 4: Laramie County Commuting Outflow by Work Location

Industry								Da	te							
industry	2004Q1	2004Q2	2004Q3	2004Q4	2005Q1	2005Q2	2005Q3	2005Q4	2006Q1	2006Q2	2006Q3	2006Q4	2007Q1	2007Q2	2007Q3	2007Q4
Agriculture, Forestry, & Fishing	-44	-66	-77	-56	-31	-32	-26	-23	-24	-25	-27	-21	-29	-32	-28	-25
Mining	-56	-58	-74	-64	-80	-99	-106	-107	-104	-107	-136	-154	-152	-126	-126	-133
Construction	-234	-285	-291	-293	-248	-319	-296	-262	-233	-304	-302	-294	-269	-370	-355	-337
Manufacturing	-33	-42	-50	-52	-47	-44	-45	-52	-45	-43	-43	-49	-43	-43	-45	-40
Wholesale Trade	-170	-202	-179	-175	-151	-166	-174	-157	-135	-136	-150	-138	-155	-158	-166	-153
Retail Trade	-293	-263	-249	-245	-240	-253	-259	-234	-215	-218	-261	-225	-147	-177	-172	-176
Transportation, Warehousing & Utilities	-118	-134	-125	-131	-127	-145	-160	-158	-151	-170	-162	-166	-169	-197	-187	-188
Information	-48	-51	-40	-40	-40	-37	-30	-23	-24	-29	-31	-29	-25	-24	-24	-21
Financial Activities	-200	-198	-207	-224	-162	-177	-174	-151	-131	-114	-122	-119	-108	-149	-122	-107
Professional & Business Services	-372	-386	-426	-384	-368	-418	-389	-358	-297	-352	-400	-353	-365	-420	-439	-396
Education	-118	-132	-102	-141	-127	-138	-106	-117	-110	-125	-116	-116	-112	-98	-91	-99
Health Care & Social Assistance	-283	-287	-311	-295	-175	-192	-189	-184	-173	-177	-183	-188	-182	-190	-198	-205
Leisure & Hospitality	-282	-398	-338	-310	-272	-314	-361	-291	-235	-265	-291	-271	-233	-246	-287	-264
Other Services	-115	-119	-99	-97	-82	-88	-95	-85	-151	-159	-146	-146	-91	-99	-95	-93
State Govt. Public Admin.	-5	-8	-5	-6	-9	-5	-6	-4	-5	-6	-4	-5	-3	-3	-3	-4
Local Govt. Public Admin.	-32	-40	-29	-36	-32	-44	-42	-36	-34	-40	-44	-38	-37	-49	-38	-32
Unknown Industry Wyoming	-116	-116	-113	-88	-111	-105	-77	-103	-110	-108	-111	-146	-197	-53	-31	-34
Unknown Industry Out of State	-702	-873	-692	-651	-580	-650	-694	-618	-669	-687	-844	-791	-780	-837		
Total	-3,221	-3,658	-3,407	-3,288	-2,882	-3,226	-3,229	-2,963	-2,846	-3,065	-3,373	-3,249	-3,097	-3,271	-2,407	-2,307

Table 5: Laramie County Commuting Outflow by Industry