

APPENDIX F

SHIFT-SHARE ANALYSIS

The following appendix contains Shift-Share Analysis Data for the counties in Northwest Lower Michigan.

Shift-Share Analyses

The shift-share analysis is used to show the growth of major industries for a particular area, in this case counties, and how each industry has changed as a proportion of all local employment. The tables in this section display each of the major industries, their total employment for the respective county from 2010-2019, the degree to which that total has changed in the last decade, as well as the percent share of employment that each industry represents and how that has changed over the decade. For example, you can see in Table 1 for Emmet that the Health Care and Social Assistance industry has added 104 jobs from 2010-2019 but now makes up only 13.7% of local employment in 2019 compared to 15.1% in 2010. So while that industry has grown, it hasn't grown at the same rate as other industries and now represents a smaller share of the total local employment. This table basically provides a snapshot of how employment in these sectors has changed, or stayed the same, since 2010.

The standardized growth and employment columns show how those industries "should" have grown or declined based on national trends. For example, in Emmet you can see in its shift-share table that the Construction industry grew from employing 1,765 people in the county in 2010 to 2,337 people in 2019. If the Construction industry had grown at a rate on par with national trends, the employment in 2019 would be just 2,270 people (Standardized Employment column of the table). This means that Construction in Emmet is outperforming national growth rates for that industry. Please note the data limitations and excluded industries for each county at the bottom of its data table.

For each table:

¹Share: The percentage share of total employment by industry.

²Standardized Growth: at the same rate as its counterpart at the national level had each industry grown.

³Standardized Employment, 2019: The 2019 level of employment in each industry had it grown at the same rate as its counterparts at the national level since 2001.

Source: Calculations by the Michigan Regional Economic Analysis Project (MI-REAP) with data provided by the U.S. Department of Commerce, Bureau of Economic Analysis

Antrim Shift-Share

Antrim County Employment Growth, 2010-2019									
	Employment				Actual Growth		Standardized		Employment ³
	2010		2019		Percent	Net	Growth ²		
Major Industry	Level	Share ¹	Level	Share ¹	Percent	Net	Percent	Net	2019
Farm Employment	489	5.7	519	5.4	6.13	30	-1.33	-6	483
Construction	625	7.2	1,029	10.6	64.64	404	28.64	179	804
Manufacturing	827	9.6	1,037	10.7	25.39	210	12.22	101	928
Wholesale Trade	88	1	153	1.6	73.86	65	8.25	7	95
Retail Trade	832	9.6	894	9.2	7.45	62	8.61	72	904
Information	122	1.4	139	1.4	13.93	17	7.7	9	131
Finance and Insurance	320	3.7	312	3.2	-2.5	-8	19.12	61	381
Real Estate and Rental and Leasing	493	5.7	655	6.8	32.86	162	27.66	136	629
Professional, Scientific, and Technical Services	494	5.7	484	5	-2.02	-10	25.33	125	619
Administrative and Waste Services	364	4.2	402	4.1	10.44	38	21.09	77	441
Arts, Entertainment, and Recreation	245	2.8	316	3.3	28.98	71	28.47	70	315
Accommodation and Food Services	1,087	12.6	1,096	11.3	0.83	9	27.65	301	1,388
Other Services (except Public Administration)	565	6.5	739	7.6	30.8	174	20.55	116	681
Federal Civilian	91	1.1	60	0.6	-34.07	-31	-5.14	-5	86
Military	44	0.5	37	0.4	-15.91	-7	-7.33	-3	41
State Government	115	1.3	142	1.5	23.48	27	1.85	2	117
Local Government	1,045	12.1	958	9.9	-8.33	-87	1.94	20	1,065
Other/Suppressed Industries*	793	9.2	722	7.4	-8.95	-71	27.52	218	1,011
Total Employment	8,639	100	9,694	100	12.21	1,055	17.14	1,480	10,119

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Forestry, Fishing, and Related Activities; Mining; Utilities; Transportation and Warehousing; Management of Companies and Enterprises; Educational Services; Health Care and Social Assistance

Benzie Shift-Share

Benzie County Employment Growth, 2010-2019									
	Employment				Actual Growth		Standardized		
	2010		2019		Percent	Net	Growth ²		Employment ³
Major Industry	Level	Share ¹	Level	Share ¹	Percent	Net	Percent	Net	2019
Farm Employment	201	2.9	197	2.5	-1.99	-4	-1.33	-3	198
Construction	675	9.7	820	10.5	21.48	145	28.64	193	868
Manufacturing	573	8.3	482	6.2	-15.88	-91	12.22	70	643
Retail Trade	765	11	827	10.6	8.1	62	8.61	66	831
Information	35	0.5	41	0.5	17.14	6	7.7	3	38
Finance and Insurance	238	3.4	295	3.8	23.95	57	19.12	46	284
Real Estate and Rental and Leasing	428	6.2	523	6.7	22.2	95	27.66	118	546
Administrative and Waste Services	305	4.4	365	4.7	19.67	60	21.09	64	369
Arts, Entertainment, and Recreation	268	3.9	309	4	15.3	41	28.47	76	344
Accommodation and Food Services	1,107	15.9	1,313	16.9	18.61	206	27.65	306	1,413
Other Services (except Public Administration)	449	6.5	550	7.1	22.49	101	20.55	92	541
Federal Civilian	47	0.7	35	0.5	-25.53	-12	-5.14	-2	45
Military	48	0.7	29	0.4	-39.58	-19	-7.33	-4	44
State Government	103	1.5	78	1	-24.27	-25	1.85	2	105
Local Government	603	8.7	624	8	3.48	21	1.94	12	615
Other/Suppressed Industries*	1,100	15.8	1,286	16.5	16.91	186	24.75	272	1,372
Total Employment	6,945	100	7,774	100	11.94	829	18.89	1,312	8,257

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Forestry, Fishing, and Related Activities; Mining; Utilities; Wholesale Trade; Transportation and Warehousing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Educational Services; Health Care and Social Assistance

Charlevoix Shift-Share

Charlevoix County Employment Growth, 2010-2019									
	Employment				Actual Growth		Standardized		
	2010		2019				Growth ²		Employment ³
Major Industry	Level	Share ¹	Level	Share ¹	Percent	Net	Percent	Net	2019
Farm Employment	318	2.2	297	1.9	-6.6	-21	-1.33	-4	314
Utilities	147	1	172	1.1	17.01	25	-0.76	-1	146
Construction	1,102	7.8	1,343	8.6	21.87	241	28.64	316	1,418
Manufacturing	2,111	14.9	2,704	17.2	28.09	593	12.22	258	2,369
Wholesale Trade	126	0.9	95	0.6	-24.6	-31	8.25	10	136
Retail Trade	1,295	9.1	1,242	7.9	-4.09	-53	8.61	111	1,406
Transportation and Warehousing	180	1.3	187	1.2	3.89	7	67.92	122	302
Information	61	0.4	70	0.4	14.75	9	7.7	5	66
Finance and Insurance	499	3.5	470	3	-5.81	-29	19.12	95	594
Real Estate and Rental and Leasing	794	5.6	1,131	7.2	42.44	337	27.66	220	1,014
Administrative and Waste Services	618	4.3	620	4	0.32	2	21.09	130	748
Arts, Entertainment, and Recreation	423	3	489	3.1	15.6	66	28.47	120	543
Accommodation and Food Services	1,637	11.5	1,880	12	14.84	243	27.65	453	2,090
Other Services (except Public Administration)	737	5.2	855	5.5	16.01	118	20.55	151	888
Federal Civilian	65	0.5	52	0.3	-20	-13	-5.14	-3	62
Military	70	0.5	66	0.4	-5.71	-4	-7.33	-5	65
State Government	191	1.3	223	1.4	16.75	32	1.85	4	195
Local Government	1,507	10.6	1,557	9.9	3.32	50	1.94	29	1,536
Other/Suppressed Industries*	2,331	16.4	2,224	14.2	-4.59	-107	21.64	504	2,835
Total Employment	14,212	100	15,677	100	10.31	1,465	17.7	2,515	16,727

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Forestry, Fishing, and Related Activities; Mining; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Educational Services; Health Care and Social Assistance

Emmet Shift-Share

Emmet County Employment Growth, 2010-2019									
	Employment				Actual Growth		Standardized		
	2010		2019				Growth ²		Employment ³
Major Industry	Level	Share ¹	Level	Share ¹	Percent	Net	Percent	Net	2019
Farm Employment	302	1.3	315	1.2	4.3	13	-1.33	-4	298
Construction	1,765	7.5	2,337	8.8	32.41	572	28.64	505	2,270
Manufacturing	1,073	4.6	1,801	6.8	67.85	728	12.22	131	1,204
Retail Trade	3,339	14.3	3,148	11.9	-5.72	-191	8.61	287	3,626
Information	305	1.3	245	0.9	-19.67	-60	7.7	23	328
Finance and Insurance	787	3.4	779	2.9	-1.02	-8	19.12	150	937
Real Estate and Rental and Leasing	1,257	5.4	1,465	5.5	16.55	208	27.66	348	1,605
Administrative and Waste Services	1,673	7.2	2,043	7.7	22.12	370	21.09	353	2,026
Educational Services	246	1.1	264	1	7.32	18	17.29	43	289
Health Care and Social Assistance	3,535	15.1	3,639	13.7	2.94	104	21.01	743	4,278
Arts, Entertainment, and Recreation	812	3.5	963	3.6	18.6	151	28.47	231	1,043
Accommodation and Food Services	2,189	9.4	3,378	12.7	54.32	1,189	27.65	605	2,794
Other Services (except Public Administration)	1,298	5.5	1,568	5.9	20.8	270	20.55	267	1,565
Federal Civilian	124	0.5	104	0.4	-16.13	-20	-5.14	-6	118
Military	62	0.3	52	0.2	-16.13	-10	-7.33	-5	57
State Government	310	1.3	297	1.1	-4.19	-13	1.85	6	316
Local Government	2,341	10	2,140	8.1	-8.59	-201	1.94	45	2,386
Other/Suppressed Industries*	1,972	8.4	2,008	7.6	1.83	36	28.39	560	2,532
Total Employment	23,390	100	26,546	100	13.49	3,156	18.31	4,283	27,673

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Forestry, Fishing, and Related Activities; Mining; Utilities; Wholesale Trade; Transportation and Warehousing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises

Grand Traverse Shift-Share

Grand Traverse County Employment Growth, 2010-2019									
Major Industry	Employment				Actual Growth		Standardized		
	2010		2019		Percent	Net	Growth ²		Employment ³
	Level	Share ¹	Level	Share ¹			Percent	Net	2019
Farm Employment	538	0.9	561	0.8	4.28	23	-1.33	-7	531
Forestry, Fishing, and Related Activities	298	0.5	391	0.5	31.21	93	15.45	46	344
Mining	1,739	2.8	1,081	1.5	-37.84	-658	-11.18	-194	1,545
Utilities	237	0.4	271	0.4	14.35	34	-0.76	-2	235
Construction	3,649	5.8	4,632	6.4	26.94	983	28.64	1,045	4,694
Manufacturing	4,169	6.6	5,727	7.9	37.37	1,558	12.22	509	4,678
Wholesale Trade	1,422	2.3	1,783	2.5	25.39	361	8.25	117	1,539
Retail Trade	8,570	13.6	8,992	12.4	4.92	422	8.61	738	9,308
Transportation and Warehousing	781	1.2	1,194	1.7	52.88	413	67.92	530	1,311
Information	1,146	1.8	1,192	1.6	4.01	46	7.7	88	1,234
Finance and Insurance	3,385	5.4	4,159	5.8	22.87	774	19.12	647	4,032
Real Estate and Rental and Leasing	3,089	4.9	3,923	5.4	27	834	27.66	854	3,943
Professional, Scientific, and Technical Services	3,925	6.2	4,129	5.7	5.2	204	25.33	994	4,919
Management of Companies and Enterprises	141	0.2	163	0.2	15.6	22	38.03	54	195
Administrative and Waste Services	2,330	3.7	2,574	3.6	10.47	244	21.09	491	2,821
Educational Services	846	1.3	1,199	1.7	41.73	353	17.29	146	992
Health Care and Social Assistance	9,539	15.2	11,411	15.8	19.62	1,872	21.01	2,005	11,544
Arts, Entertainment, and Recreation	1,488	2.4	1,782	2.5	19.76	294	28.47	424	1,912
Accommodation and Food Services	5,350	8.5	6,522	9	21.91	1,172	27.65	1,479	6,829
Other Services (except Public Administration)	3,065	4.9	4,081	5.6	33.15	1,016	20.55	630	3,695
Federal Civilian	576	0.9	497	0.7	-13.72	-79	-5.14	-30	546
Military	295	0.5	270	0.4	-8.47	-25	-7.33	-22	273
State Government	939	1.5	769	1.1	-18.1	-170	1.85	17	956
Local Government	5,339	8.5	4,945	6.8	-7.38	-394	1.94	103	5,442
Total Employment	62,856	100	72,248	100	14.94	9,392	16.97	10,665	73,521

Kalkaska Shift-Share

Kalkaska County Employment Growth, 2010-2019									
Major Industry	Employment				Actual Growth		Standardized		
	2010		2019		Percent	Net	Growth ²		Employment ³
	Level	Share ¹	Level	Share ¹			Percent	Net	2019
Farm Employment	224	3.6	206	3.1	-8.04	-18	-1.33	-3	221
Forestry, Fishing, and Related Activities	46	0.7	48	0.7	4.35	2	15.45	7	53
Mining	657	10.5	440	6.6	-33.03	-217	-11.18	-73	584
Construction	504	8.1	881	13.1	74.8	377	28.64	144	648
Manufacturing	400	6.4	395	5.9	-1.25	-5	12.22	49	449
Wholesale Trade	162	2.6	182	2.7	12.35	20	8.25	13	175
Retail Trade	625	10	630	9.4	0.8	5	8.61	54	679
Information	30	0.5	44	0.7	46.67	14	7.7	2	32
Finance and Insurance	144	2.3	144	2.1	0	0	19.12	28	172
Real Estate and Rental and Leasing	307	4.9	341	5.1	11.07	34	27.66	85	392
Administrative and Waste Services	562	9	680	10.1	21	118	21.09	119	681
Educational Services	48	0.8	71	1.1	47.92	23	17.29	8	56
Health Care and Social Assistance	328	5.3	200	3	-39.02	-128	21.01	69	397
Arts, Entertainment, and Recreation	108	1.7	84	1.3	-22.22	-24	28.47	31	139
Accommodation and Food Services	305	4.9	350	5.2	14.75	45	27.65	84	389
Other Services (except Public Administration)	421	6.8	480	7.2	14.01	59	20.55	87	508
Federal Civilian	37	0.6	25	0.4	-32.43	-12	-5.14	-2	35
Military	32	0.5	28	0.4	-12.5	-4	-7.33	-2	30
State Government	103	1.7	147	2.2	42.72	44	1.85	2	105
Local Government	786	12.6	949	14.2	20.74	163	1.94	15	801
Other/Suppressed Industries*	408	6.5	377	5.6	-7.6	-31	37.6	153	561
Total Employment	6,237	100	6,702	100	7.46	465	13.94	869	7,106

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Utilities; Transportation and Warehousing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises

Leelanau Shift-Share

Leelanau County Employment Growth, 2010-2019									
Major Industry	Employment				Actual Growth		Standardized		
	2010		2019		Actual Growth		Growth ²		Employment ³
	Level	Share ¹	Level	Share ¹	Percent	Net	Percent	Net	2019
Farm Employment	553	5.1	632	4.8	14.29	79	-1.33	-7	546
Utilities	4	0	5	0	25	1	-0.76	0	4
Construction	865	8	1,188	9.1	37.34	323	28.64	248	1,113
Manufacturing	380	3.5	679	5.2	78.68	299	12.22	46	426
Wholesale Trade	129	1.2	401	3.1	210.85	272	8.25	11	140
Retail Trade	893	8.3	963	7.4	7.84	70	8.61	77	970
Transportation and Warehousing	78	0.7	137	1.1	75.64	59	67.92	53	131
Information	118	1.1	98	0.8	-16.95	-20	7.7	9	127
Finance and Insurance	423	3.9	549	4.2	29.79	126	19.12	81	504
Real Estate and Rental and Leasing	785	7.3	1,071	8.2	36.43	286	27.66	217	1,002
Educational Services	193	1.8	222	1.7	15.03	29	17.29	33	226
Health Care and Social Assistance	709	6.6	717	5.5	1.13	8	21.01	149	858
Arts, Entertainment, and Recreation	435	4	616	4.7	41.61	181	28.47	124	559
Accommodation and Food Services	1,035	9.6	1,215	9.3	17.39	180	27.65	286	1,321
Other Services (except Public Administration)	616	5.7	791	6.1	28.41	175	20.55	127	743
Federal Civilian	166	1.5	132	1	-20.48	-34	-5.14	-9	157
Military	41	0.4	34	0.3	-17.07	-7	-7.33	-3	38
Other/Suppressed Industries*	3,373	31.2	3,588	27.5	6.37	215	13.75	464	3,837
Total Employment	10,796	100	13,038	100	20.77	2,242	17.65	1,906	12,702

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Forestry, Fishing, and Related Activities; Mining; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Administrative and Waste Services; State Government; Local Government

Manistee Shift-Share

Manistee County Employment Growth, 2010-2019									
	Employment				Actual Growth		Standardized		
	2010		2019				Growth ²		Employment ³
Major Industry	Level	Share ¹	Level	Share ¹	Percent	Net	Percent	Net	2019
Farm Employment	350	3.3	288	2.7	-17.71	-62	-1.33	-5	345
Construction	588	5.5	675	6.2	14.8	87	28.64	168	756
Manufacturing	813	7.6	1,023	9.4	25.83	210	12.22	99	912
Wholesale Trade	229	2.1	271	2.5	18.34	42	8.25	19	248
Retail Trade	1,218	11.4	1,231	11.4	1.07	13	8.61	105	1,323
Information	80	0.7	82	0.8	2.5	2	7.7	6	86
Finance and Insurance	250	2.3	297	2.7	18.8	47	19.12	48	298
Real Estate and Rental and Leasing	395	3.7	451	4.2	14.18	56	27.66	109	504
Professional, Scientific, and Technical Services	300	2.8	319	2.9	6.33	19	25.33	76	376
Administrative and Waste Services	398	3.7	355	3.3	-10.8	-43	21.09	84	482
Arts, Entertainment, and Recreation	265	2.5	349	3.2	31.7	84	28.47	75	340
Accommodation and Food Services	817	7.6	751	6.9	-8.08	-66	27.65	226	1,043
Other Services (except Public Administration)	667	6.2	765	7.1	14.69	98	20.55	137	804
Federal Civilian	115	1.1	129	1.2	12.17	14	-5.14	-6	109
Military	64	0.6	79	0.7	23.44	15	-7.33	-5	59
Other/Suppressed Industries*	4,174	38.9	3,769	34.8	-9.7	-405	18.07	754	4,928
Total Employment	10,723	100	10,834	100	1.04	111	17.64	1,892	12,615

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Forestry, Fishing, and Related Activities; Mining; Utilities; Transportation and Warehousing; Management of Companies and Enterprises; Educational Services; Health Care and Social Assistance; State Government; Local Government

Missaukee Shift-Share

Missaukee County Employment Growth, 2010-2019									
Major Industry	Employment				Actual Growth		Standardized		
	2010		2019		Percent	Net	Growth ²		Employment ³
	Level	Share ¹	Level	Share ¹			Percent	Net	2019
Farm Employment	726	14.7	985	16.5	35.67	259	-1.33	-10	716
Construction	339	6.9	453	7.6	33.63	114	28.64	97	436
Manufacturing	471	9.5	731	12.3	55.2	260	12.22	58	529
Wholesale Trade	109	2.2	152	2.5	39.45	43	8.25	9	118
Retail Trade	417	8.4	511	8.6	22.54	94	8.61	36	453
Finance and Insurance	134	2.7	143	2.4	6.72	9	19.12	26	160
Real Estate and Rental and Leasing	191	3.9	261	4.4	36.65	70	27.66	53	244
Professional, Scientific, and Technical Services	134	2.7	192	3.2	43.28	58	25.33	34	168
Other Services (except Public Administration)	345	7	426	7.1	23.48	81	20.55	71	416
Federal Civilian	39	0.8	26	0.4	-33.33	-13	-5.14	-2	37
Military	28	0.6	24	0.4	-14.29	-4	-7.33	-2	26
Other/Suppressed Industries*	2,013	40.7	2,060	34.5	2.33	47	19.92	401	2,414
Total Employment	4,946	100	5,964	100	20.58	1,018	15.57	770	5,716

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Forestry, Fishing, and Related Activities; Mining; Utilities; Transportation and Warehousing; Information; Management of Companies and Enterprises; Administrative and Waste Services; Educational Services; Health Care and Social Assistance; Arts, Entertainment, and Recreation; Accommodation and Food Services; State Government; Local Government

Wexford Shift-Share

Wexford County Employment Growth, 2010-2019									
Major Industry	Employment				Actual Growth		Standardized		
	2010		2019		Percent	Net	Growth ²		Employment ³
	Level	Share ¹	Level	Share ¹			Percent	Net	2019
Farm Employment	362	2.1	341	1.8	-5.8	-21	-1.33	-5	357
Forestry, Fishing, and Related Activities	178	1	287	1.5	61.24	109	15.45	28	206
Mining	80	0.5	72	0.4	-10	-8	-11.18	-9	71
Construction	784	4.5	793	4.2	1.15	9	28.64	225	1,009
Manufacturing	2,959	16.9	3,518	18.7	18.89	559	12.22	361	3,320
Retail Trade	2,244	12.8	2,071	11	-7.71	-173	8.61	193	2,437
Transportation and Warehousing	482	2.8	695	3.7	44.19	213	67.92	327	809
Information	253	1.4	326	1.7	28.85	73	7.7	19	272
Finance and Insurance	592	3.4	594	3.1	0.34	2	19.12	113	705
Real Estate and Rental and Leasing	584	3.3	601	3.2	2.91	17	27.66	162	746
Administrative and Waste Services	1,047	6	1,362	7.2	30.09	315	21.09	221	1,268
Educational Services	378	2.2	241	1.3	-36.24	-137	17.29	65	443
Health Care and Social Assistance	1,867	10.7	1,821	9.7	-2.46	-46	21.01	392	2,259
Arts, Entertainment, and Recreation	284	1.6	347	1.8	22.18	63	28.47	81	365
Accommodation and Food Services	1,342	7.7	1,506	8	12.22	164	27.65	371	1,713
Other Services (except Public Administration)	999	5.7	1,058	5.6	5.91	59	20.55	205	1,204
Federal Civilian	161	0.9	124	0.7	-22.98	-37	-5.14	-8	153
Military	63	0.4	53	0.3	-15.87	-10	-7.33	-5	58
State Government	312	1.8	364	1.9	16.67	52	1.85	6	318
Local Government	1,577	9	1,723	9.1	9.26	146	1.94	31	1,608
Other/Suppressed Industries*	968	5.5	965	5.1	-0.31	-3	20.8	201	1,169
Total Employment	17,516	100	18,862	100	7.68	1,346	16.98	2,975	20,491

*The "Other/Suppressed Industries" category portrayed in this table represents a combined total of those industries for which data were unavailable due to confidentiality restrictions. Those industries that are combined include: Utilities; Wholesale Trade; Professional, Scientific, and Technical Services; Management of Companies and Enterprises