

APPENDIX D

Socioeconomic Analysis

Economic Impacts of Construction
IMPLAN Analysis by Southeast Strategies
January 2010
Linda Snow, Author

Methodology

In order to estimate the full impact of construction of the Proposed Action for Haines Highway improvements on the economy of the Haines Borough, construction cost estimates were fed through a well-known economic input/output model (IMPLAN) calibrated to fit the Haines Borough economy. This model is designed to determine secondary impacts of initial construction expenditures.

The IMPLAN (IMPact Analysis for PLANning) model is a community and regional level input/output model initially developed by the U.S. Forest Service in cooperation with the Federal Emergency Management Agency, and the U.S. Department of the Interior, Bureau of Land Management to assist the Forest Service in land and resource management planning. The model uses Borough-level data about employment, income, and other indicators to determine how direct economic impacts will produce multiplier effects (indirect and induced economic impacts) within the Haines Borough.

The IMPLAN model is detailed enough to calculate economic multipliers specific to an individual industry within the Haines Borough. For this analysis, we used the industry entitled “Construction of Other New Nonresidential Structures” as the industry that most closely fits with this construction activity that exists within the Haines Borough economy.

Value added impacts to the Borough are created when income earned by a business is re-spent within the local economy, either when the business receiving the income purchases goods and services locally, or when employees of the business purchase goods and services locally. These primary and secondary economic impacts are defined below.

- Direct impacts are primary impacts to the Borough economy that are a direct result Haines Highway construction activity, and would not exist if the Proposed Action were not undertaken. These impacts are to businesses doing the actual construction of the Proposed Action, and the direct impact amount is equal to the project’s estimated construction cost.
- Indirect impacts are secondary impacts to the Borough economy of additional spending in the area by businesses earning income directly from construction of the Proposed Action. These impacts are created when directly-impacted businesses re-spend their income for goods and services within the local economy.
- Induced impacts are secondary impacts to the Borough economy of additional spending in the area by households who earn income (usually as wages and salaries) directly from construction of the Proposed Action. These impacts are created when employees spend their construction-related paychecks for goods and services within the local economy.

The IMPLAN model calculated direct, indirect, and induced impacts on the Haines Borough economy of the Proposed Action-related construction spending in terms of business revenue, full-time equivalent jobs, payroll, rents, royalties and dividends, fees and taxes, and total value added. These impact categories are defined below.

- Business Revenue – This is the value of the business’ total production (gross earnings for the project). Some of this revenue will be spent locally on payroll, rent, taxes, and other expenditures, while some of the income will leave the local economy.
- Full-time Equivalent (FTE) Jobs – These are jobs created by business activity related directly or indirectly to the Proposed Action construction activity. Jobs are counted as the equivalent of full-time, year around jobs such that each one FTE is equal to one-full time job lasting one year. Even though some of the jobs created by construction activity on the Haines Highway may be part-time or seasonal, they are combined and counted as full-time equivalents in this report.
- Payroll and Proprietors’ Income – This category of impacts includes wages and salaries paid to employees as a result of the Proposed Action construction-related activity, as well as payments received by business proprietors and self-employed individuals as income.
- Rents, Royalties and Dividends – This category of impacts accounts for lease and rent payments, royalties and dividends that are paid by impacted businesses within the Haines Borough economy.
- Local Fees and Taxes – This category of impacts accounts for sales, property and other local taxes paid by businesses , as well as local fees and commissions paid within the Borough economy.
- Value Added – This is the amount of business revenue that remains in the local area economy though local spending on the above categories of payroll and business owner income, rents and leases, and local tax and fee payments.

Construction activities are separated into four phases. For purposes of this analysis, we assume that each phase will take a year to complete. Monetary and job impacts for each year lasts only for that year. All dollar values are presented in 2009 dollars.

Monetary and Jobs Impacts of the Proposed Action Construction Activity

Table 7 presents direct, indirect and induced impacts of Proposed Action construction activity on the Haines Borough economy. Business revenue for these activities will amount to an estimated \$177.97 million over the four phases of construction. Of that amount, nearly \$108 million will stay within the Borough economy. This activity will created the full-time equivalent of about 1,195.5 total jobs over the four phases (or an average of about 299 jobs per year), with a total payroll (including proprietor’s income) of \$91.05 million within the Borough. Businesses will also pay nearly \$13.06 million in rents, royalties and dividends, and about \$3.8 million in Borough fees and taxes over the four phases.

The final row of Table 7 represents the percent of business revenue that is spent locally as Value Added (for payroll, rents, fees and taxes) through both direct (primary) and indirect and induced (secondary) impacts over the four phases of the Haines Highway improvements construction project.

Table 7
Economic Impacts o Haines Highway Improvements Construction
Assumes 4 1-year Phases (in 2009 Dollars)¹

	Phase 1	Phase 2	Phase 3	Phase 4	Total
Business Revenue					
Direct	\$33,342,000	\$33,297,000	\$30,795,000	\$35,518,000	\$132,952,000 ²
Indirect	\$3,493,693	\$3,488,977	\$3,226,809	\$3,721,702	\$13,931,181
Induced	\$7,796,058	\$7,785,536	\$7,200,516	\$8,304,852	\$31,086,962
Total	\$44,631,751	\$44,571,513	\$41,222,325	\$47,544,554	\$177,970,143
Jobs (Full-Time Equivalent)*					
Direct	192.1	191.8	177.4	204.6	765.8
Indirect	32.0	31.9	29.5	34.1	127.6
Induced	75.8	75.7	70.0	80.7	302.2
Total	299.8	299.4	276.9	319.4	1,195.5
Payroll & Proprietor's Income					
Direct	\$18,741,351	\$18,716,056	\$17,309,696	\$19,964,468	\$74,731,571
Indirect	\$1,402,966	\$1,401,073	\$1,295,793	\$1,494,528	\$5,594,361
Induced	\$2,688,744	\$2,685,115	\$2,483,350	\$2,864,219	\$10,721,429
Total	\$22,833,061	\$22,802,244	\$21,088,840	\$24,323,216	\$91,047,361
Rent, Royalties & Dividends					
Direct	\$696,702	\$695,761	\$643,481	\$742,171	\$2,778,114
Indirect	\$538,857	\$538,130	\$497,693	\$574,024	\$2,148,704
Induced	\$2,040,899	\$2,038,144	\$1,884,994	\$2,174,094	\$8,138,130
Total	\$3,276,457	\$3,272,035	\$3,026,168	\$3,490,289	\$13,064,949
Local Fees & Taxes					
Direct	\$234,636	\$234,319	\$216,712	\$249,949	\$935,615
Indirect	\$154,468	\$154,259	\$142,668	\$164,549	\$615,943
Induced	\$564,309	\$563,547	\$521,201	\$601,138	\$2,250,195
Total	\$953,412	\$952,125	\$880,581	\$1,015,635	\$3,801,753
Total Value Added					
Direct	\$19,672,688	\$19,646,137	\$18,169,889	\$20,956,587	\$78,445,300
Indirect	\$2,096,291	\$2,093,461	\$1,936,155	\$2,233,101	\$8,359,008
Induced	\$5,293,951	\$5,286,806	\$4,889,546	\$5,639,451	\$21,109,754
Total	\$27,062,930	\$27,026,405	\$24,995,589	\$28,829,139	\$107,914,063
Percent retained in Borough	60.6%	60.6%	60.6%	60.6%	60.6%

Source: Minnesota IMPLAN Group and Southeast Strategies.

* The Full Time Equivalent (FTE) jobs represent the equivalent of full time jobs for one full year. The total under this category represents the FTE for four years of construction activity.

Notes:

¹ Phasing and cost estimates from Preliminary Engineering Report (DOWL HKM, 2010c).

² Direct business revenue equals project's estimated construction cost.