

SUPPLEMENT TO ANALYSIS OF SOCIO-ECONOMIC ASPECTS OF SPECIFIED  
YEAR 2000 REDISTRICTING QUESTIONS

prepared by  
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November 15, 2001

The following material supplements *ANALYSIS OF SOCIO-ECONOMIC ASPECTS OF SPECIFIED YEAR 2000 REDISTRICTING QUESTIONS*, a report I prepared for the Alaska Redistricting Board, (Bradford H. Tuck, May 29, 2001). This supplement discusses certain socio-economic linkages relative to the *FINAL PLAN AND PROCLAMATION OF REDISTRICTING*, Alaska Redistricting Board, June 18, 2001. The supplemental analysis relies on the same economic concepts and methodology used in the initial analysis, including central place theory and interindustry economics. It addresses four issues (1) the integration of the Delta area with the rest of House District 12; (2) the socio-economic integration of Valdez with the rest of House District 32 and the Anchorage area; (3) the socio-economic integration of House District 37; and (4) linkages between Cordova and the rest of House District 5.

## THE DELTA JUNCTION AREA AND HOUSE DISTRICT 12

### POLITICAL OR QUASI-POLITICAL LINKAGES

Delta Junction is incorporated as a second-class city. The remaining communities in the Delta area (Big Delta, Deltana, Dry Creek, Fort Greely, and Healy Lake) are unincorporated. There is no borough. The Delta area is not part of any ARDOR.

### GENERAL LINKAGE INDICATORS

#### Transportation

The Delta area is served primarily by highway. It is connected to Fairbanks, Glennallen, and Valdez by the Richardson Highway, and to Tok, the Alaska border, and Canada by the Alaska Highway. The primary link with the Mat-Su and Anchorage area is the Richardson Highway to Glennallen and then the Glenn Highway to the Mat-Su. Bulk commodities (fertilizer) may go by rail to Fairbanks and then by truck to the Delta area.

#### Utilities

Golden Valley Electric Association is the primary electric power provider for the Delta region. GVEA indicates that its service area extends down the Alaska Highway to about the Gerstle River. This would include all, or nearly all, of the Delta barley project area, but not Dry Creek. GVEA also serves the Denali Borough. The Matanuska Electric Association serves the remainder of District 12.

Phone service includes a mix of providers. ACS of the Northland (one of several ACS subsidiaries) provides local area service. Long-distance service is available from ACS, AT&T, and GCI. Dry Creek lists Alaska Telephone & Power and AT&T for long distance service. The Matanuska Telephone Association (MTA) provides communications services to the remainder of District 12.

## HOUSEHOLD SECTOR LINKAGES

The Delta/Greely school district administers the schools in the Delta area. However, Dry Creek is under the Alaska Gateway Schools. The Denali and Mat-Su boroughs administer schools within their respective areas. House District 12 reflects a mix of Alaska School Activities Association (ASAA) memberships. Membership classification is based on enrollment (grades 9-12). Delta Junction is listed as a Class 3A school (101-400 students) and normally competes in District 1 of Region 3&6, with schools such as Glennallen, Valdez, Ben Eielson AFB and some other Fairbanks schools. The hockey schedule also includes teams from the Kenai Peninsula and Houston, and with some private schools in Anchorage. The Denali Borough schools belong to either Class 2A, with 51 to 100 students (Anderson, Healy), or Class 1A, with 5 to 50 students (Cantwell), and do not normally compete with Delta Junction, but do compete with schools on the Alaska Highway (e.g., Dot Lake, Tok, Northway). Schools within the Mat-Su Borough range from Class 1A to 4A (401 or more students). The 4A schools tend to compete with the Kenai Peninsula schools. Delta High School was scheduled to attend the Palmer Invitational Cross Country meet, and the Palmer and Delta rifle teams compete both in Palmer and Delta.

The Denali Borough and the Delta/Greely areas are linked to Fairbanks for major medical care. In general, Fairbanks seems to be the major medical care destination for the Delta area and for the Denali Borough, north of Cantwell. North of Cantwell, Fairbanks is the service provider for Alaska Native Hospital health care, both for the Denali Borough area and the Delta area. Cantwell is served by Anchorage.

## PRODUCER SECTOR LINKAGES

### Agricultural Linkages with Mat-Su

The Delta barley project lands are in House District 6. The Tanana Loop and Delta-Clearwater areas appear to be in House District 12, so there seems to be significant agricultural activity in both parts of the Delta area. (Personal communications with Ted Cox, USDA, and Christy Roden, Cooperative Extension Service in Delta Jct., 907-895-4215, 10/30/01 and e-mails, map, and brochure).

I have also talked to Hunter Michelbrink, Cooperative Extension Service (Palmer, 907-745-3361, 10/30/01) regarding linkages between Delta area and Mat-Su. He had the following observations. Most barley produced in the Delta area is used in the Delta and Fairbanks area for feed. Some is also used in the Mat-Su area. A fair amount of hay from the Delta area is sold in the Mat-Su and Anchorage markets. Amounts depend on the harvest levels in both areas. Inputs (e.g., equipment, seed, fertilizer) come from a variety of sources and places. Some equipment comes up the Alaska Highway, some is barged to Valdez. Seed may come up to Valdez by barge, and then go by truck to the Delta area and also to Southcentral Alaska. Fertilizer may come through Valdez, Seward, or Anchorage, as well as urea from Nikiski.

Phillip Kaspari, Cooperative Extension Service (Delta Junction, 907-895-4215, 11/07/01) generally confirms Mr. Michelbrink's observations. Barley and oats from the Delta area are trucked to the Mat-Su valley, including Pt. Mackenzie. Fertilizer is backhauled. Some barley seed and substantial amounts of grass seed come up the highway from Canada. A lot of the fertilizer gets to Fairbanks by train, and is then trucked to the Delta area. At various times, beef and hogs from the Delta area are processed in Palmer, and some milk from the valley goes to the Delta creamery for processing.

I would also note that agricultural activity in the Mat-Su area is divided between adjacent election districts (13, 14, and 15) as well as District 12. It might also be noted that state and federal agricultural organizations have a statewide focus. For example, the Cooperative Extension Service (College of Rural Alaska, University of Alaska Fairbanks) has offices in almost all agricultural districts in the state.

The existence of trade flows of both inputs and outputs between the Delta area and southcentral Alaska and the Mat-Su area clearly suggests the existence of economic linkages between the two regions.

## VALDEZ AND HOUSE DISTRICT 32: LINKS TO ANCHORAGE AND SOUTHCENTRAL ALASKA

### POLITICAL OR QUASI-POLITICAL LINKAGES

Valdez is part of Prince William Sound (PWS) Economic Development District (along with Cordova, Whittier, Tatitlik, and Chenega).

Valdez is part of the Southcentral region service area for Alaska Native Health Services (which are based in Anchorage).

### GENERAL LINKAGE INDICATORS

#### Transportation

The primary transport linkages between Valdez and the remainder of the District include air, the Alaska Marine Highway, and highway connections.

Alaska Marine Highway ferry traffic in Prince William Sound is dominated by the Whittier/Valdez link. In 1998, 75.3 percent of Valdez embarking passengers were going to Whittier (and 24.2 percent were going to Cordova). From Whittier, 88.9 percent of embarking passengers were going to Valdez. The number of vehicles embarking showed similar patterns. These figures are based on the Alaska Marine Highway System (AMHS) 1998 Annual Traffic Volume Report. The 1999 and 2000 reports indicate similar patterns. A review of reservations data indicated that 34 companies booked

approximately 292 tours using the Whittier/Valdez link of the AMHS ferry (either direction). Eight of the firms and about 82 of the tours involved Anchorage firms (Attorney General's Office, Governmental Affairs Section, 10/26/01).

Airline origin and destination data indicate significant traffic between Anchorage and Valdez. For the third quarter of 2000, a total of 5,010 passengers flew from Anchorage to Valdez. A total of 5,760 passengers flew from Valdez to Anchorage. For the first quarter of 2001, there were 3,770 passengers flying from Anchorage to Valdez. Data for the Valdez-Anchorage leg were not available. Assuming that these are representative seasonal data, the figures annualize to a total of 36,620 passenger trips, or about 18,000 in each direction. Revenues associated with this travel are estimated to be about \$1.69 million. Data are from the U.S. Department of Transportation's Origin and Destination Survey, and reflect a 10 percent sample of tickets.

Valdez residents traveling to Anchorage appear to mainly come by highway. Of those households indicating that they had traveled to Anchorage and stayed at least one night (290), 244 indicated that they had traveled by highway (72.4 percent of 337 respondents). (See Valdez Public Opinion Survey, July 2001, for the State of Alaska, by Ivan Moore Research). About 13.6 percent of respondents traveled by air.

Waterborne commerce statistics for 1998 and 1999 suggest that Valdez Harbor is almost entirely focused on the shipment of crude oil and petroleum products. (U.S. Army Corps of Engineers, Waterborne Commerce of the United States, 1998, 1999). Other freight is minimal. Some agricultural industry inputs for the Delta area come through the port.

#### Utilities

Valdez is served by the Copper Valley Electric Association and is not part of the railbelt power grid.

#### Communications

Local area telephone service is provided by the Copper Valley Telephone Cooperative. Long distance service providers include AT&T, Alascom, and GCI. The Valdez Public Opinion Poll reports 20.5 percent of responders subscribe to the Anchorage Daily News.

GCI long-distance phone call O/D data indicate that Valdez "talks" to Anchorage frequently. Per capita calls to Anchorage from Valdez are well above calls to any other place. In part, this is due to the fact that Anchorage is also the largest city in Alaska. When adjusted for the population of the call destination city, Valdez most frequently calls, on a per capita basis, Whittier, Cordova, Anchorage, and Juneau, in that order. Data were provided by GCI, Inc. and cover the period from 9/1/2000 – 3/31/2001.

#### HOUSEHOLD SECTOR LINKAGES

There are a number of apparent linkages within the household sector between Valdez, the remainder of House District 32, and the Anchorage area.

A public opinion survey of a sample of Valdez residents was conducted in July, 2001 for the State of Alaska, by Ivan Moore Research. The survey explored a broad array of socio-economic interactions. The overall picture suggests fairly strong interactions between Valdez and Anchorage. A substantial number of Valdez residents have traveled to Anchorage in the past twelve months (79 percent of responding households have had at least one member travel to Anchorage, stay at least one night, and spent money during the stay). Purposes of the travel include purchases of bulk household products, major appliances, medical care, and trucks and automobiles. The survey also indicates that Valdez respondents have close friends in Anchorage (60.5 percent), close family members (36.5 percent), or have attended college in Anchorage (9.7 percent).

Prince William Sound Community College (PWSCC) is organizationally linked to the University of Alaska Anchorage. The president of PWSCC reports to the UAA chancellor. There has been significant interaction between the two institutions in summer theater for several years. About 47 students attending the Anchorage campus of UAA are from Valdez. An additional 773 students are enrolled in PWSCC, based on fall 2000 enrollment data. In addition, 114 students in PWSCC listed Anchorage, Chugiak, or Eagle River as their place of residence. Five students at PWSCC also reported Girdwood as their place of residence. (Ophelia Dargan-Steed, UAA Institutional Planning, Research and Assessment, November 9, 2001 and November 13, 2001, communications).

Valdez is a member of the Alaska School Activities Association. Valdez is a Class 3A school and competes in Region 3&6, District 1 (Cordova, Delta, Ben Eielson AFB, Glennallen, and two Fairbanks schools). Teams also travel to other areas including the Kenai Peninsula and the Mat-Su Valley. The basketball, volleyball, and wrestling teams also compete with private schools in the Anchorage area, and the Anchorage teams also travel to Valdez (Mr. Dan Eide, athletic director for Valdez High School, 11/14/01 personal communication).

The Valdez Public Opinion Survey also addressed employment interaction between Valdez and Anchorage. According to the survey, 32.1 percent of the respondents "work for businesses that have offices in Anchorage" and 28.7 percent of respondents "work for businesses that have performed work in the last twelve months for customers that live or are based in Anchorage." More on this is covered in the next section.

## PRODUCER SECTOR LINKAGES

The Valdez economy economic base depends heavily on the oil industry, both with respect to transportation of crude oil and in terms of refining. Headquarters for the Alaska oil and gas industry are in Anchorage. Other major employers include the State of Alaska, City of Valdez, Valdez City Schools, and the University of Alaska (PWSCC in part). For the Valdez/Cordova census district, Valdez resident employment totals 2,185 out of a total of 4,647. The balance is composed of Alaska residents who live elsewhere

in the census district or outside the census district in Alaska, or are not Alaska residents. Based on the Permanent Fund Dividend address of the worker, 391 employees reside in Anchorage, Eagle River, or Chugiak. Another 22 reside in Girdwood and 59 live in Whittier. (Alaska Department of Labor and Workforce Development, Research and Analysis, Second Quarter, 2000).

A listing of firms in the Valdez/Cordova census district that have 20 or more employees accounts for total employment of 3,513 (Alaska Department of Labor and Workforce Development, Research and Analysis, Second Quarter, 2000). Of this total, 1,669 are Valdez residents (based on PFD mailing addresses). When these firms are grouped according to the location of the owning corporation, about 35 percent of employment is by Anchorage based firms, 34 percent by Valdez based firms, and the balance to other Alaska and non-Alaska firms.

Valdez residents hold 31 limited entry salmon permits, out of 720 for Prince William Sound. Residents of the Anchorage Municipality, including 5 in Girdwood, hold 69. Cordova holds 405 permits. (Data are based on the 2001 Commercial Fisheries Entry Commission permit listing).

Business links operate in both directions. A review of the 1999-2000 phone directory (Copper Basin and Prince William Sound) indicates a number of enterprises that have their primary office in Anchorage or advertisements listing an Anchorage address. These firms include enterprises active in finance, communications, transportation, and travel. Also, there are five firms that provide helicopter/airplane skiing based in Valdez. One of the firms indicates that about 10-15 percent of its customers come from Anchorage, with most of the rest from Lower 48 and international locations. This means that about 120 to 200 Anchorage skiers per season (late February through early May) ski with this one firm. The firm indicates that it is planning to push advertising in the Anchorage area (Alaska Backcountry Adventures, Inc., 11/08/01, personal communication).

In summary, there is substantial economic interaction between Valdez and the Anchorage area. This is reflected in the diversity of business ownership of firms active in Valdez, the mix of residence location of workers in Valdez, the frequency of travel between Valdez and Anchorage, and other indicators of social and economic interaction.

#### ALEUTIANS EAST BOROUGH AND HOUSE DISTRICT 37

The socio-economic integration of this district was treated in detail in the May 29, 2001 analysis. The boundaries of the present district are slightly different from those considered under draft plans. The primary difference is the addition of communities in the western part of the Bristol Bay Native Corporation and the shifting of the Lake and Peninsula Borough to a different district (36). However, as noted in the complaint by the Aleutians East Borough (9/7/2001), the house district as established by the Redistricting Board is part of a broader integrated socio-economic region. The indicators of integration

discussed in the May analysis remain relevant. Some additional information obtained since the May analysis is also indicative of socio-economic integration across the region.

The origin/destination phone data referenced above also covers some communities in the southwest region. In order of per capita adjusted frequency of calls, residents of Sand Point call King Salmon, Dillingham, Unalaska, Juneau, and Anchorage. Unalaska residents call King Salmon, Kodiak, Juneau, Dillingham, and Anchorage. Dillingham residents call King Salmon, Sand Point, Anchorage, Kodiak, and Juneau.

A review of air passenger traffic origin and destination data, referenced above, indicates frequent air travel throughout the region. The data tend to reflect the air routes discussed in the May analysis.

Alaska Marine Highway passenger statistics for 1998 through 2000 indicate that the ferry is used primarily for within region travel by communities in the region. A relatively small fraction (generally less than five or ten percent) of disembarking passengers in King Cove, Sand Point, and Cold Bay embarked at Kodiak, and the same holds for the reverse direction. There does appear to be somewhat higher traffic between Kodiak and Unalaska/Dutch Harbor. Sampson Tug and Barge also indicated that they moved about 133 tons of cargo between Kodiak and the Aleutians in 2001, but did not relate these tonnages to any overall figures.

The Commercial Fisheries Entry Commission (CFEC) information on salmon permit holders suggests that most permit holders who reside in the Aleutians East Borough and the Bristol Bay area fish in the permit area where they reside. At least two processors (Peter Pan Seafoods, Inc., and Trident Seafoods Corp.) also appear to operate multiple facilities in House District 37.

## CORDOVA AND HOUSE DISTRICT 5

The analysis in May indicated substantial linkages between Cordova and southcentral Alaska. Linkages with southeast Alaska were much more limited, and this remains the case. The CFEC data indicate three distinct fisheries areas (Prince William Sound, Yakutat, and Southeast). Permit holders fish almost entirely within their resident areas. Three processors (NorQuest Seafoods, Inc., North Pacific Seafoods, and Ocean Beauty Seafoods, Inc.) operate plants in Cordova and in southeast communities, but apparently not in other communities that are part of House District 5.

Sampson Tug and Barge, which is a major carrier for Cordova, also serves Sitka. Sitka to Cordova freight was about 40 tons in 2001.

It was suggested in the May analysis that the cruise ship industry might also be an area of common interest. Cruise ship landings data for the 2001 season show that Cordova had four ships, averaging 91 passengers. Haines had 87 landings, with an average of 536 passengers per landing. Skagway had 404 landings with an average of 1,510 passengers.



Yakutat had one landing with 117 passengers. Data were provided by Fred Reeder, Cruise Line Agencies of Alaska, through Northern Economics, Inc.

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