
Wild Fire, Emergency Fire- Fighting and Rural Communities in Alaska



Sarah F. Trainor,¹ F. Stuart Chapin, III¹ La'ona
DeWilde,² Henry Huntington,³ Orville
Huntington,⁴ David C. Natcher⁵

¹University of Alaska, Fairbanks, ² DeWilde Consulting, ³ Huntington Consulting,
⁴ Alaska Native Science Commission, ⁵ Memorial University, St. John's
Newfoundland

Talk Overview

- Emergency Fire Fighting (EFF)
 - What role does EFF play in rural communities?
 - How is EFF employment distributed state-wide?

- Forces of change
 - Implications for EFF & rural communities

Methods

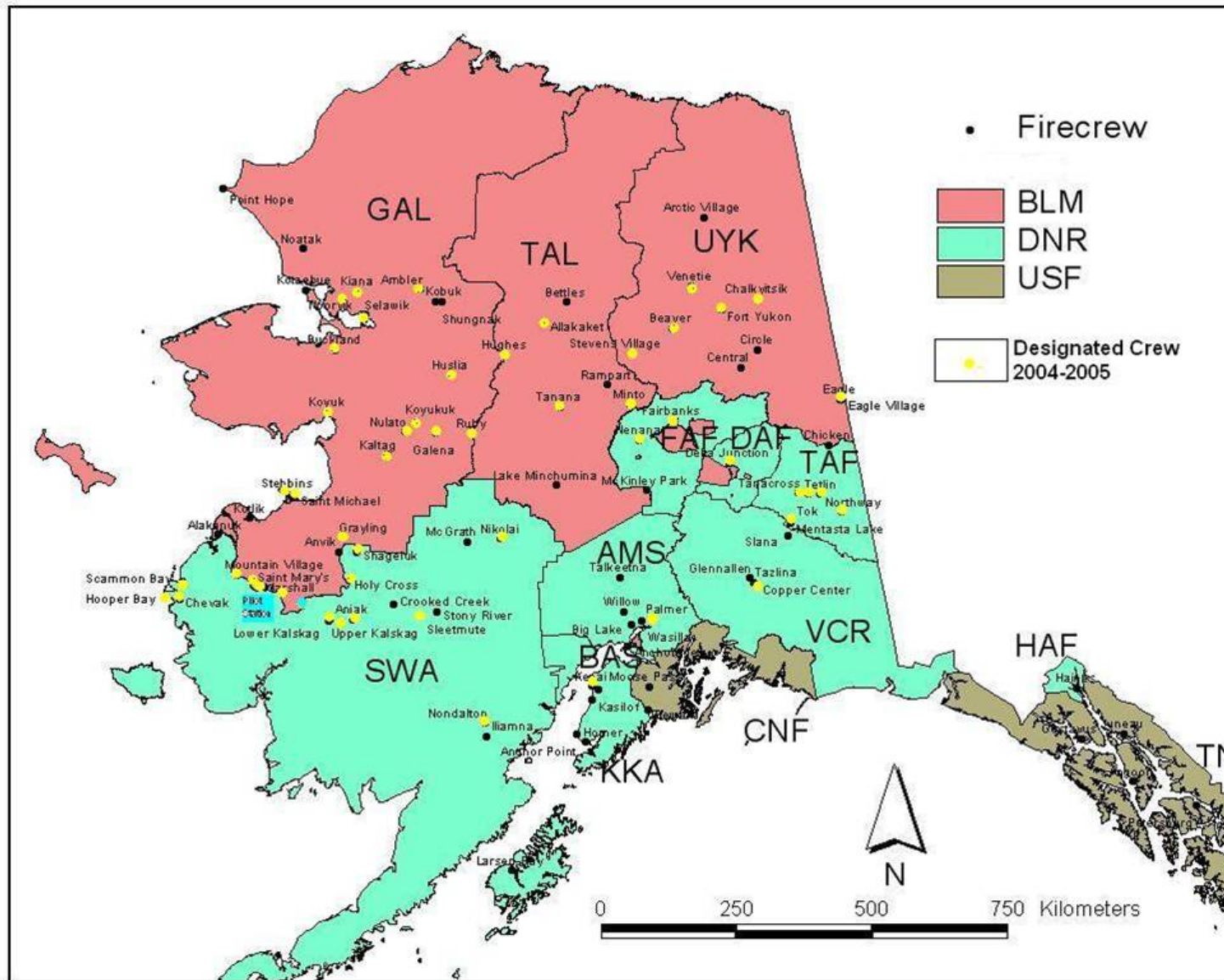
- Survey of emergency fire fighters (EFF)(n=57)_(Trainor)
- Analysis of EFF wage data (1986-2004) _(Trainor)
- Community workshops in Huslia
_(H. Huntington, O. Huntington, Natcher, Trainor, Chapin, DeWilde)
- Semi-structured interviews:
 - State and BLM FMOs and EFF managers _(Trainor)
 - EFF crew members, crew boss trainees _(Trainor, DeWilde)



Waiting for EFF pack test, Grayling 2005



Phillip Esai, workshop in Huslia 2004

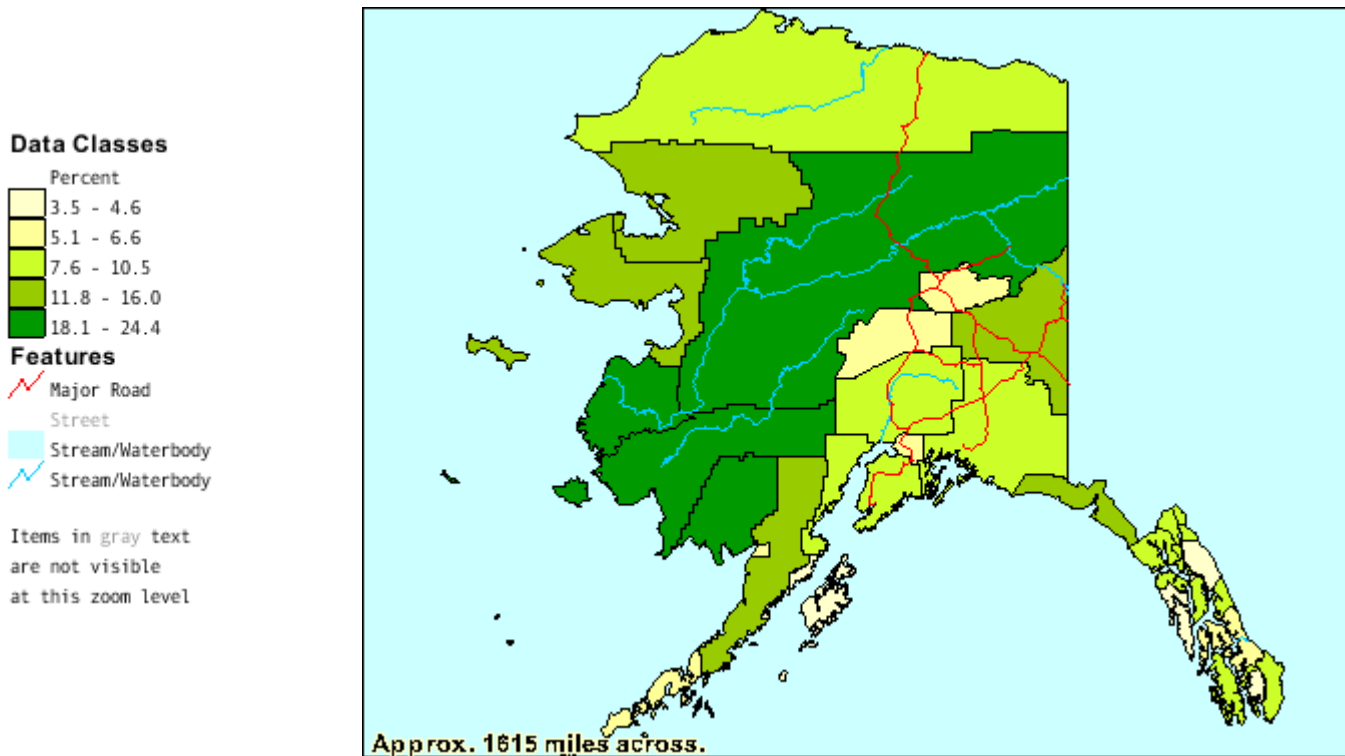


Map by Monika Calef

Sarah F. Trainor, fnsft@uaf.edu

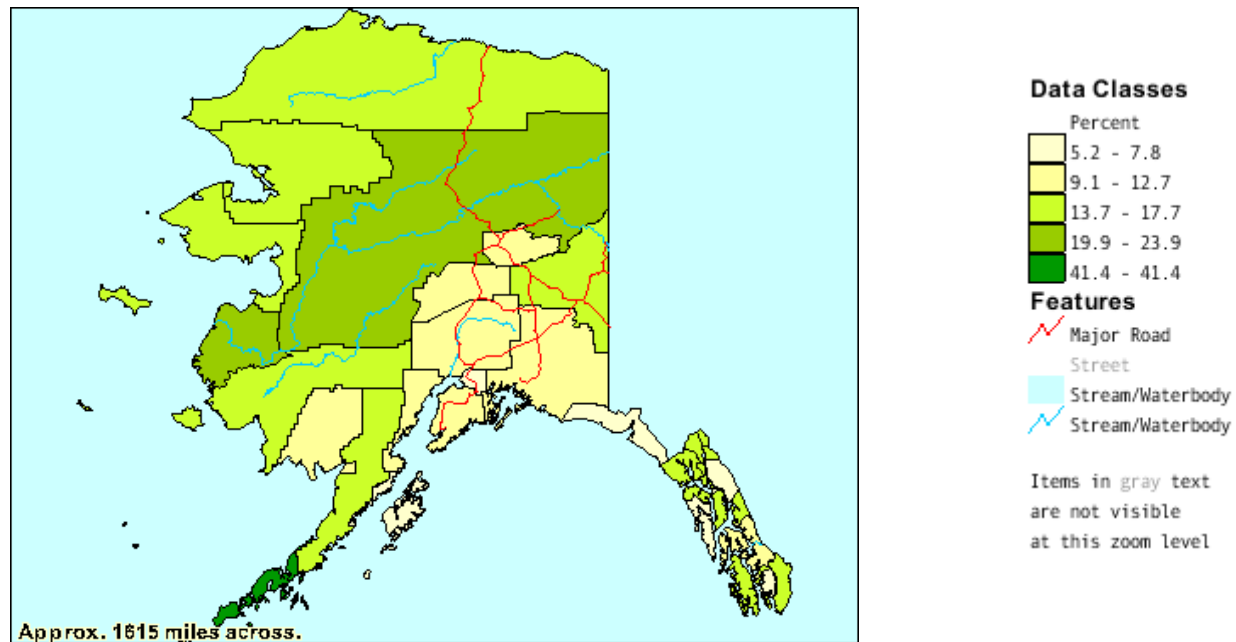
Human-Fire Interactions Symposium, University of Alaska, Fairbanks. August 15, 2006

Percent of Families Below the Poverty Level in 1999: 2000



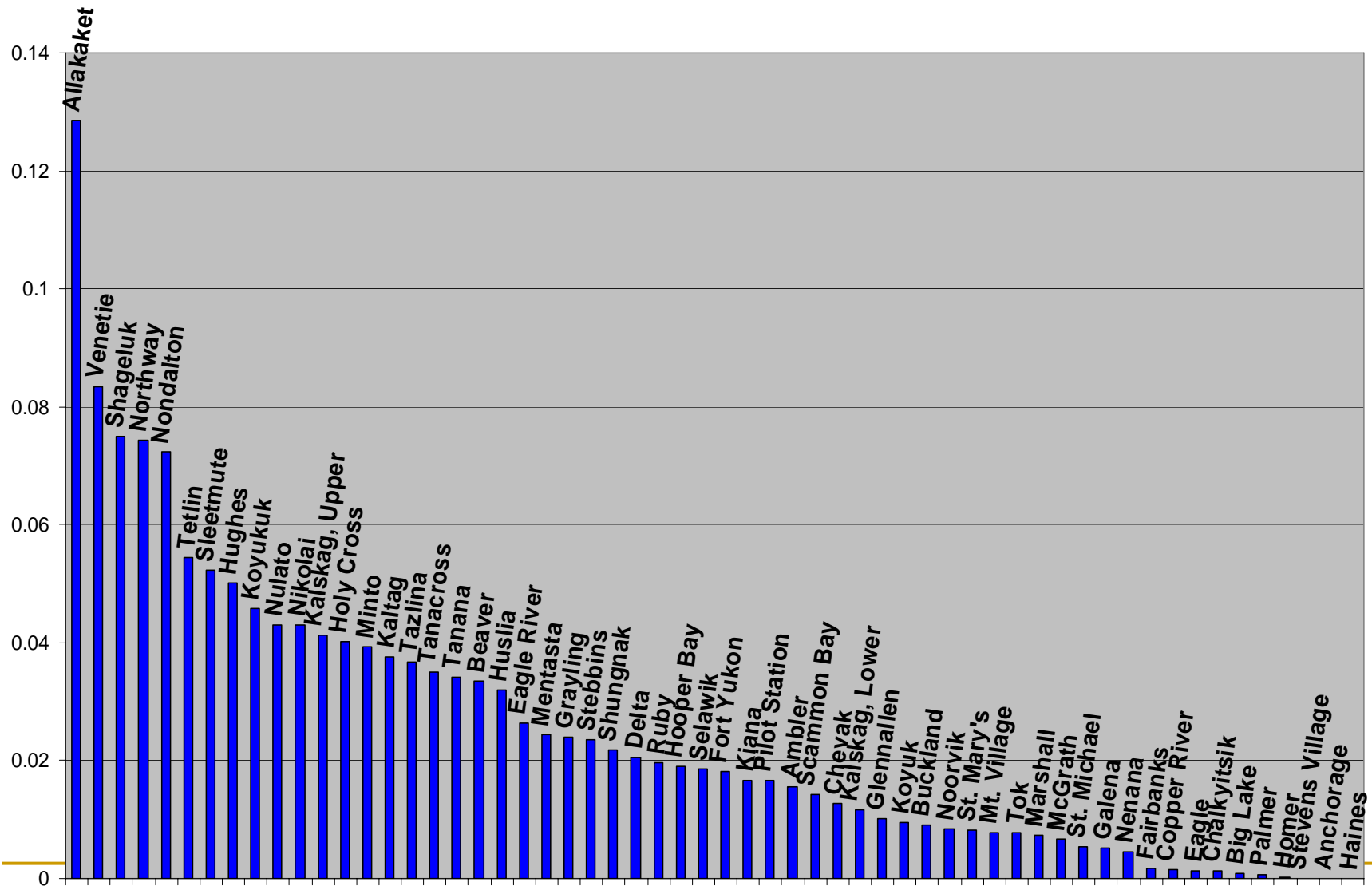
U.S. Census, **TM-P069.**

Percent of Civilian Labor Force That Is Unemployed: 2000



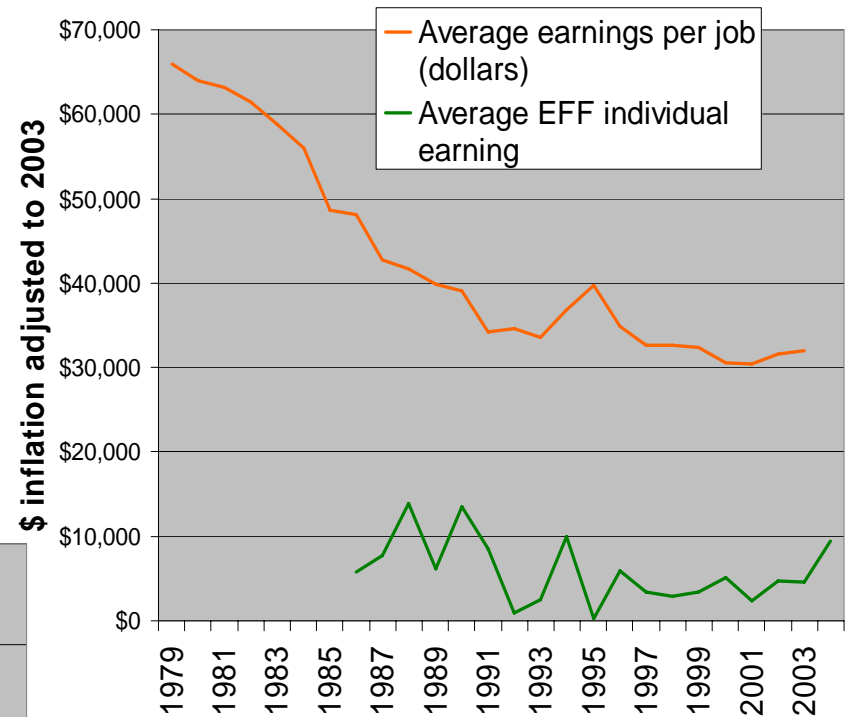
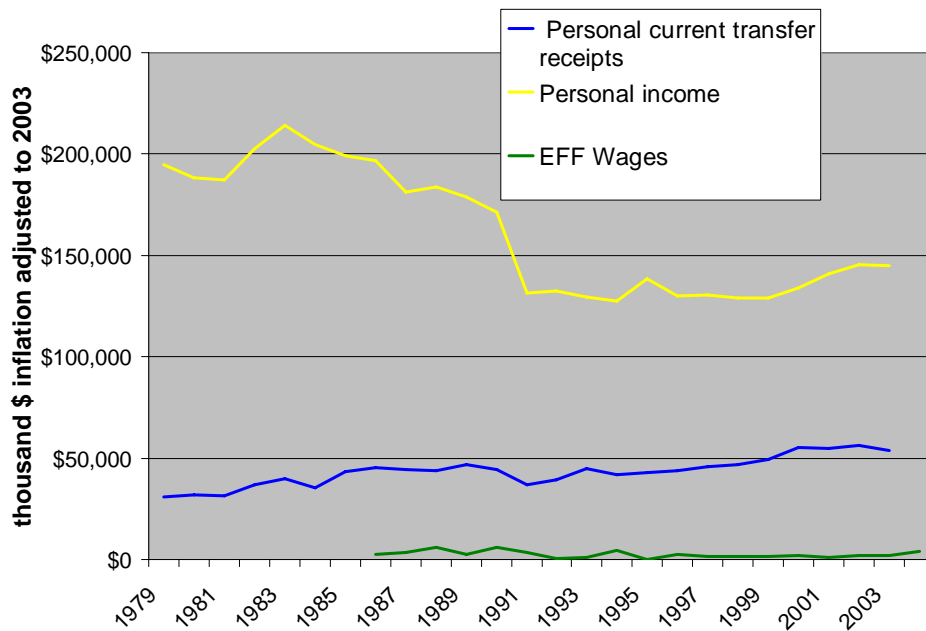
U.S. Census **TM-P049.**

Median EFF Wages 1995-2004 as Percent of Total Village Income (2000 Census)



Sarah F. Trainor, fnsft@uaf.edu

Yukon-Koyukuk Census Area



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EFF is an Important Source of Income for Entry Level Workers

- Employment bringing in majority of income is
 - Full time
 - Requires higher education
 - Schools
 - Tribal Administration, City Government

EFF is an Important Source of Income for Entry Level Workers

- On individual scale, EFF income is very important
 - EFF is only source of income for ~50% of crew members



http://fire.ak.blm.gov/unique/photos/f_solstice/5.jpg

EFF Wages Pay for...

- Food
- Utility bills
- Gasoline
- Winter clothes
- Heating fuel
- Ammunition
- Hunting & fishing supplies
- Snow machines
- Boat motors
- Travel



Photo from La'Ona DeWilde



<http://fire.ak.blm.gov/afs/afs.php>

Non-monetary Benefits of EFF

- Intergenerational mentoring
- Self-esteem
- Employment skills
- Teamwork
- Relationships with people in other villages



<http://www.alaskanativeresources.com/images/wfire2.jpg>

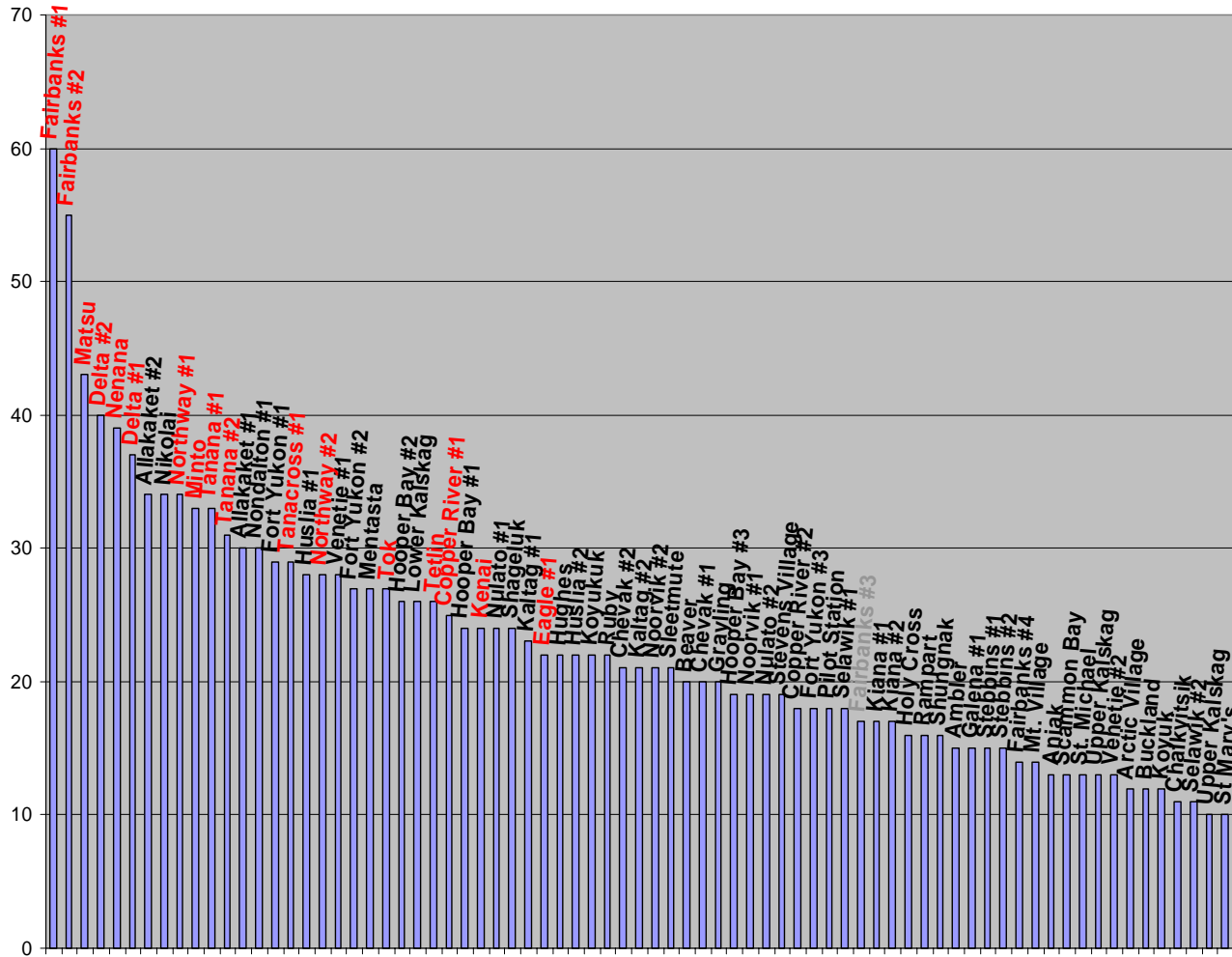
Emergency Fire Fighting

- What role does EFF play in rural communities?
 - Small percentage of overall village income
 - Large percentage of individual income
 - Important social, non-monetary benefits

Emergency Fire Fighting

- How is EFF employment distributed state-wide?

Total In-State Assignments >10 1986-2003



red = on road

Top 10 EFF Earners – Average, 1986-2004

1. Fairbanks	■ \$1,586,842
2. Delta	■ \$ 502,363
3. Tok	■ \$ 333,823
4. Fort Yukon	■ \$ 301,870
5. Hooper Bay	■ \$ 249,265
6. Palmer	■ \$ 220,229
7. Northway	■ \$ 212,442
8. Nulato	■ \$ 202,629
9. Allakaket	■ \$ 180,886
10. Glennallen	■ \$ 168,550

Red = On Road
Black = Off Road

Emergency Fire Fighting

- How is EFF employment distributed state-wide?
 - Tendency for on-road villages to earn more money and get more assignments

Balancing Equity and Efficiency – Contrasting Stakeholder Priorities

■ State DOF & BLM

- ❑ Cost efficient training and crew dispatch
- ❑ Time efficient crew dispatch
- ❑ Workforce available on demand

■ EFF Crew Members

- ❑ Fire assignments = Paycheck
- ❑ Equitable distribution of assignments across villages



<http://fire.ak.blm.gov/afs/afs.php>

Differences Between State & Federal EFF Management

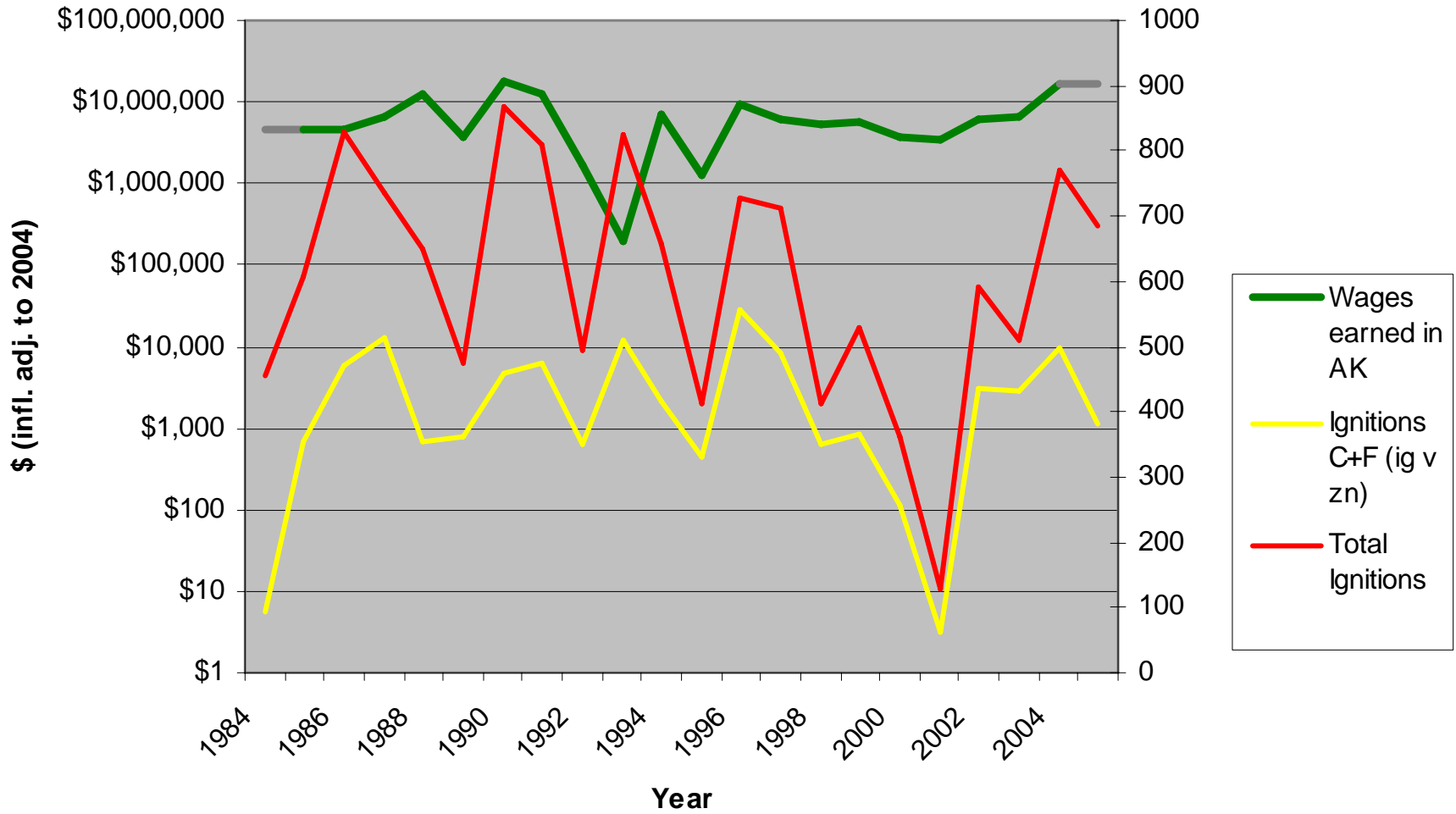
DOF

- Single resource
- Road network
 - Ignitions
 - Crew transport
- Population centers
- State pay scale

AFS/BLM

- Full crews
- Air travel required
- Federal requirements
 - Medical standard
 - Training
- Federal pay scale

Alaska In-State EFF Wages & Ignitions



Sarah F. Trainor, fnsft@uaf.edu

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Change Over Time

- Climate change
 - Increase in frequency, severity, and duration of fires
- Fire labor policies
 - Increasing training and medical requirements
 - Decreasing budgets
 - Pressure to maximize efficiency
- State demography
 - Expanding Wildland Urban Interface
- Economic
 - Increasing dependence on market sector
 - Increasing transfer payments

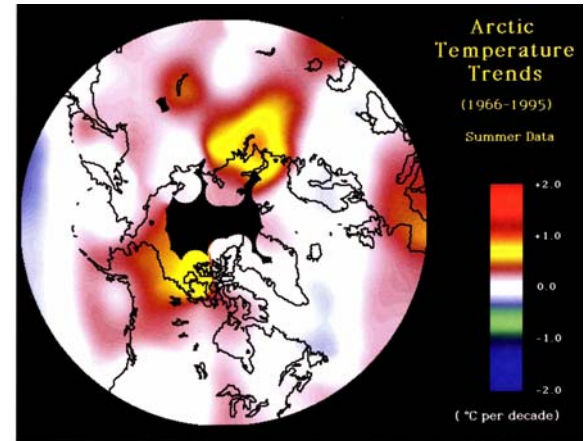


Image from F. S. Chapin, III



Photo by Mike Eng
<http://dailydeco.com/fire/housefire5.jpg>

Implications for EFF Management

- Increasing demand for suppression resource on road system
- Continued demand for rural employment
 - Willing and available labor force
 - Interest in advancement

Potential Solutions

- Local hazard fuel reduction projects
- Partnerships with BIA & Native non-profit organizations
 - Develop Native initial attack crews
 - Build Native training capacity
- Innovations in fire management to anticipate change



<http://www.alaskanativeresources.com/hfr.html>



Pack test in Grayling, 2005

Conclusion/Summary –

- Role of EFF in communities
 - Small percentage of regional & village income
 - Large percentage of individual income
 - Important social, non-monetary benefits
 - Tendency for on-road villages to earn more money and get more assignments
- Changes in the fire regime and state demographics may influence future utilization of suppression labor
- Innovative solutions can anticipate changes

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