

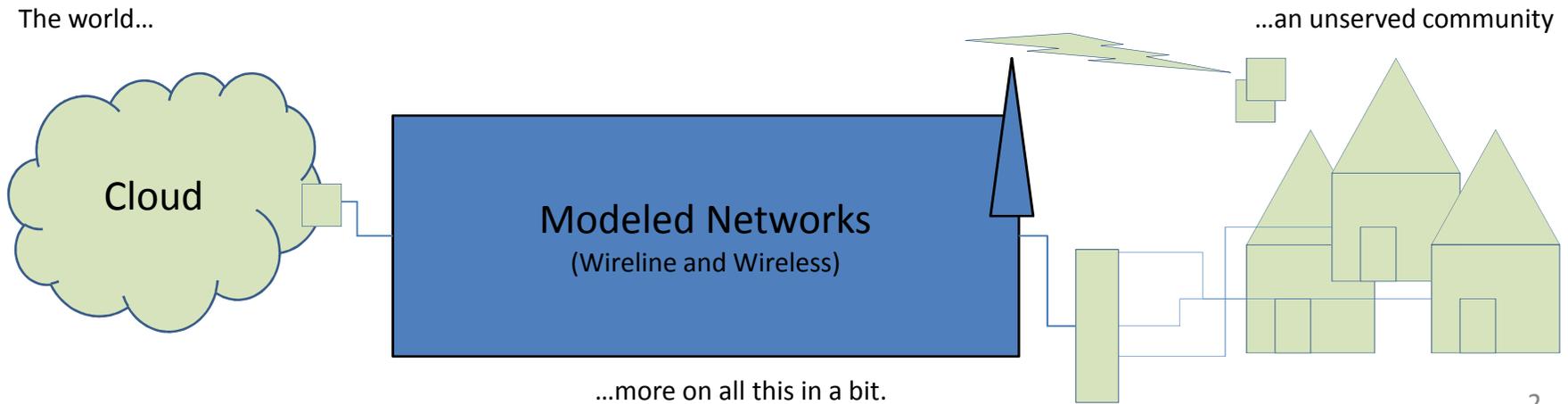


Idaho's SBI Cost Model

Idaho's SBI Cost Model – Purpose

A central issue in the advancement of broadband availability across the state is the lack of infrastructure to support the delivery of broadband to unserved areas. Therefore...

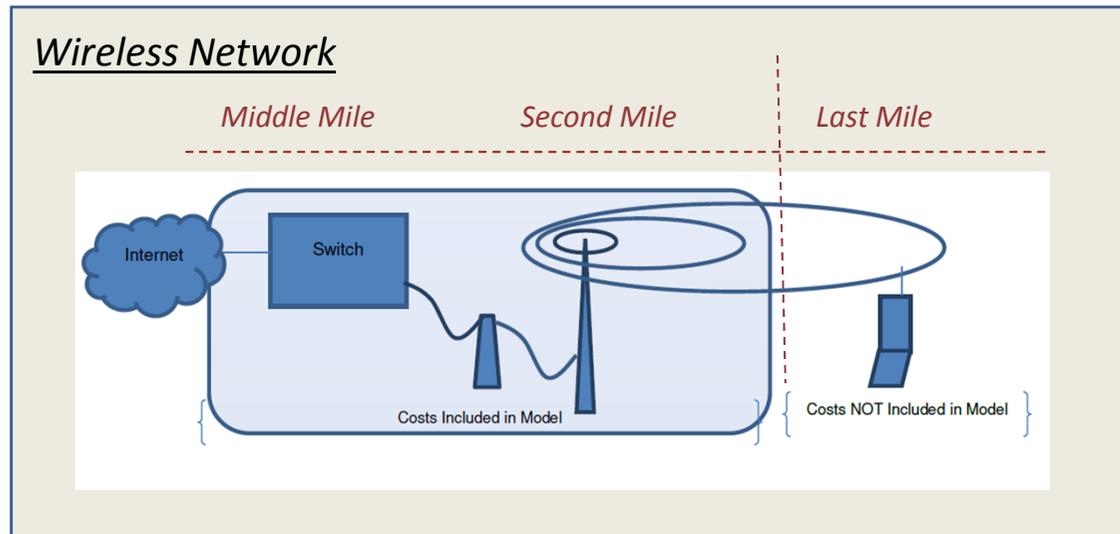
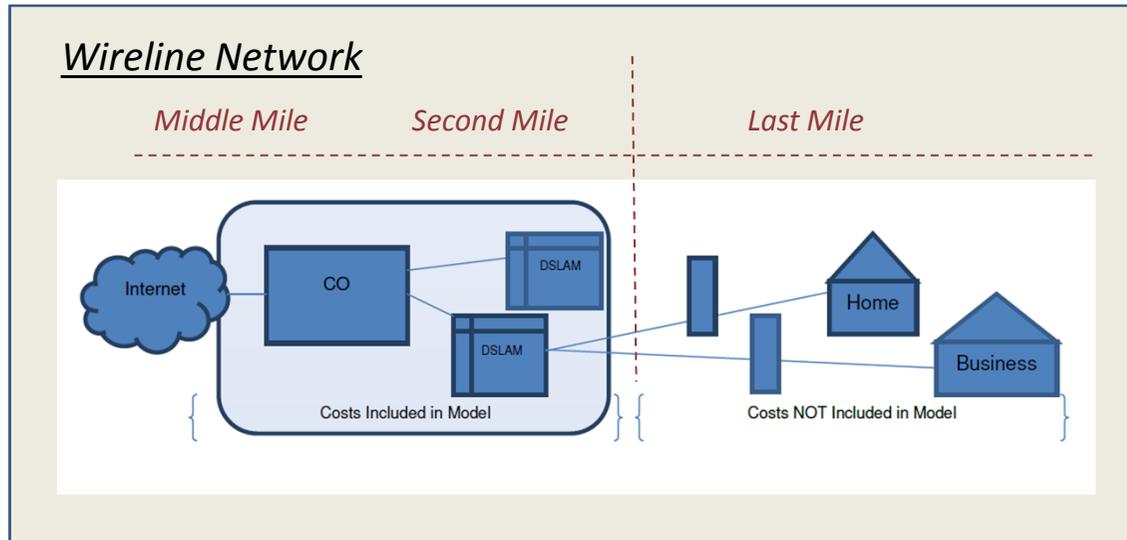
...the singular purpose of the initial cost model is to estimate the cost to deploy and operate a network capable of allowing ISP's to provide a viable broadband service to currently unserved markets.



– Background/Overview

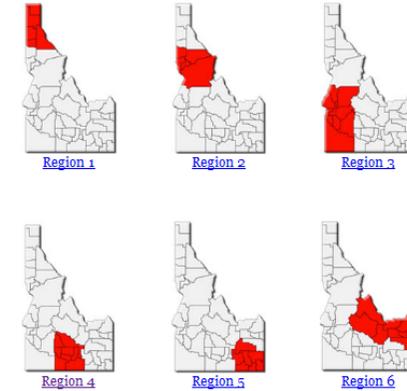
- Identifies both (i.e., separately) a wireline gap and a wireless gap
 - Complimentary...not direct substitutes
 - Unserved = those without FCC threshold (768X200 = Baseline)
- Builds (models) two networks to fill those gaps (i.e., two models in one)
 - A wireline ntwk...fiber middle mile to accommodate 4X.768 service (to 12K ft)
 - A wireless ntwk...LTE (ubiquitous depending on density and topology)
- Both are neutral to last mile/customer connection technologies...costs not included:
 - Wireline last mile estimate - \$100-\$200 per location served
 - Wireless connection estimate - \$150 per connected device

- Model scope

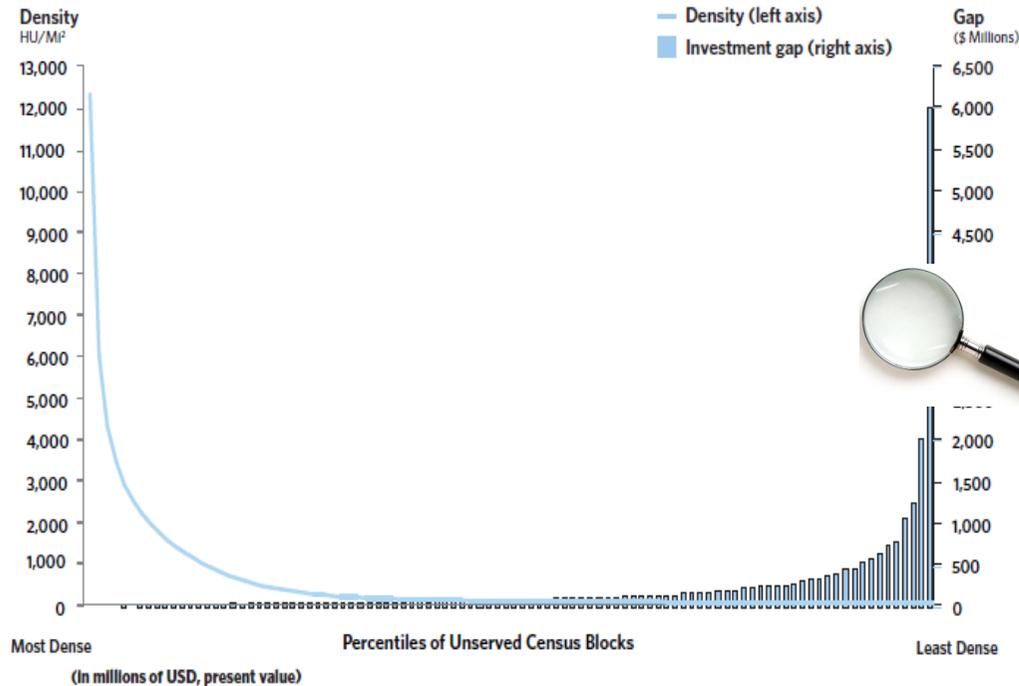


– Results

- Results expressed as:
 - Cash...CAPX, OPEX and Five year 'cash'
 - Income Stmt...Monthly Cost and Monthly Cost per subscriber
- Available at census tract, county, region and state
- Pretty far out the 'hockey stick'...density vs cost



*Exhibit 1-C:
Gap by Census
Blocks Ordered by
Population density*



– Idaho Planning Regions



[Region 1](#)



[Region 2](#)



[Region 3](#)



[Region 4](#)



[Region 5](#)



[Region 6](#)

Learn more about the regions and the regional planning process at the LinkIDAHO web site



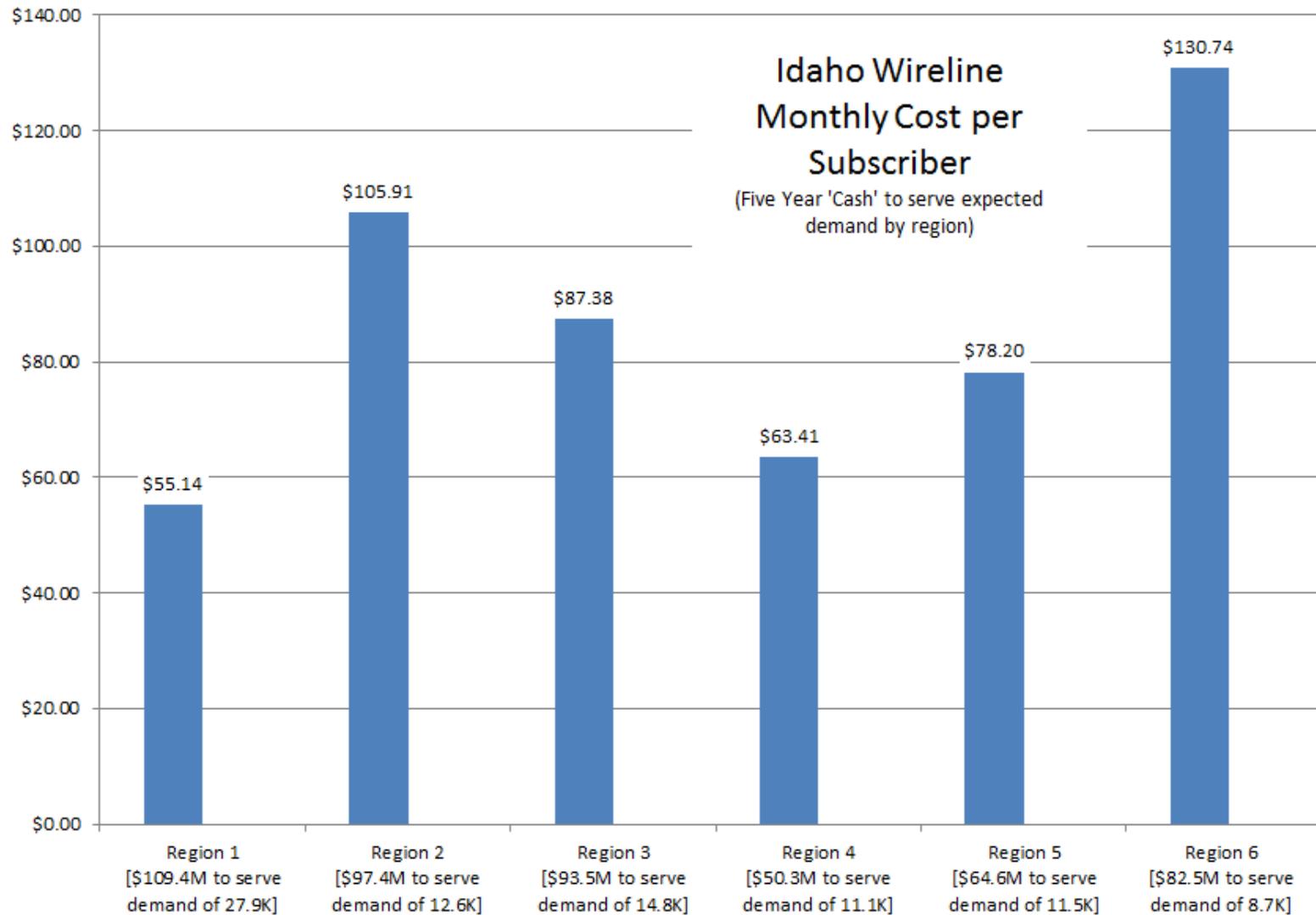
– Wireline Results

**IDAHO
WIRELINE**

Builds a middle and second mile fiber network capable of supporting 4X768 service to all communities currently without FCC threshold (768X200) service

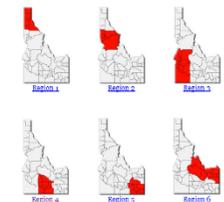
CAPEX	\$348.8M
OPEX (annual)	\$29.8M
Five Year Cash	\$497.7M
Modeled Subscribers	78,018
Monthly Expense	\$6.2M
Monthly Ex per subscriber	\$80

– Wireline Results by Region



Scale: \$0 to \$140

State-wide average: \$80



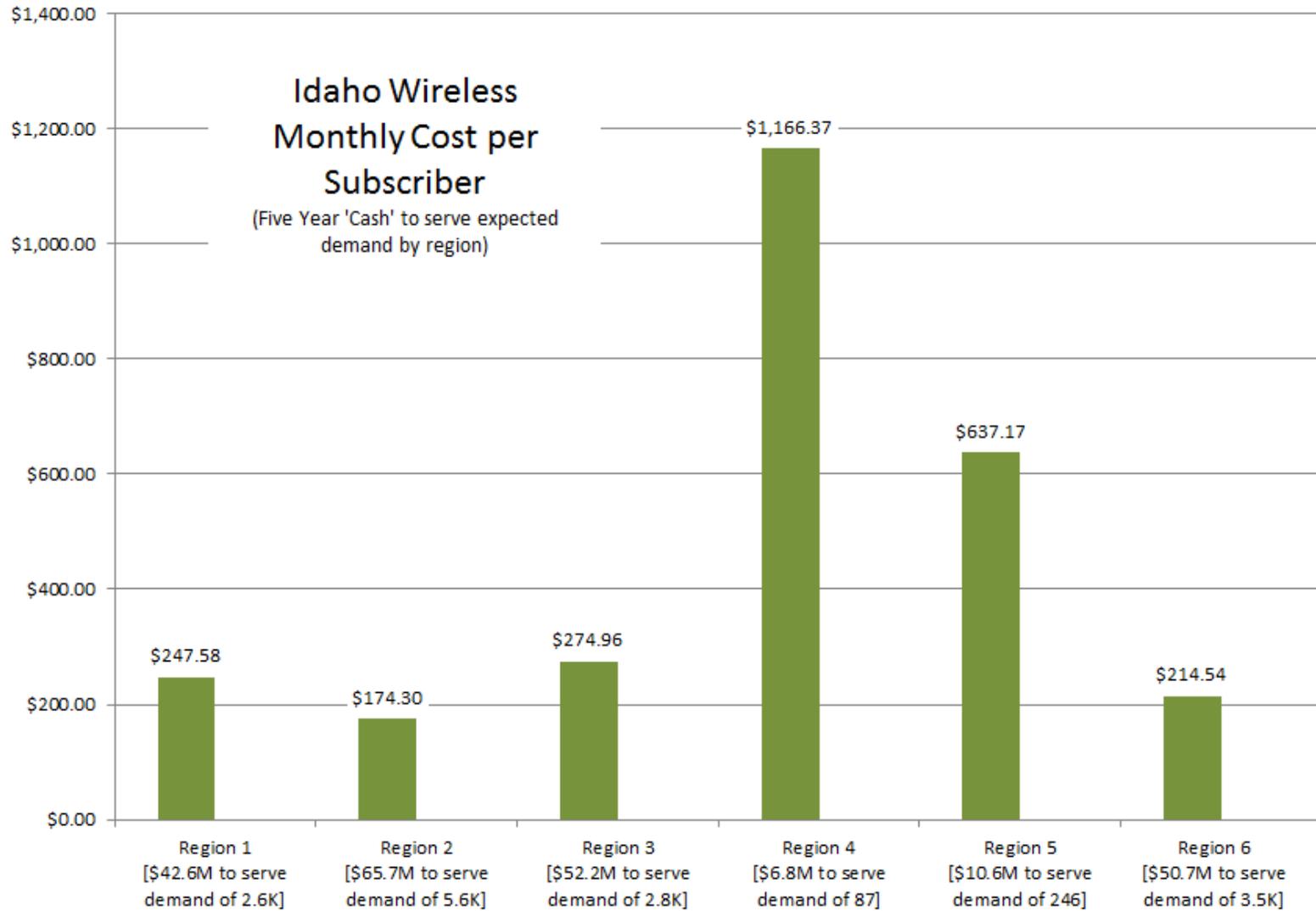
– Wireless Results

**IDAHO
WIRELESS**

Builds a mobile wireless network capable of supporting LTE service to all communities currently without FCC threshold (768X200) service

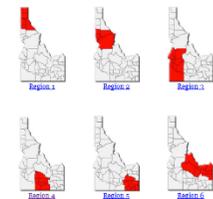
CAPEX	\$115.3M
OPEX (annual)	\$22.7M
Five Year Cash	\$228.6M
Modeled Subscribers	14,838
Monthly Expense	\$3.4M
Monthly Ex per subscriber	\$229

– Wireless Results by Region



Scale: \$0 to \$1,400

State-wide average: \$229



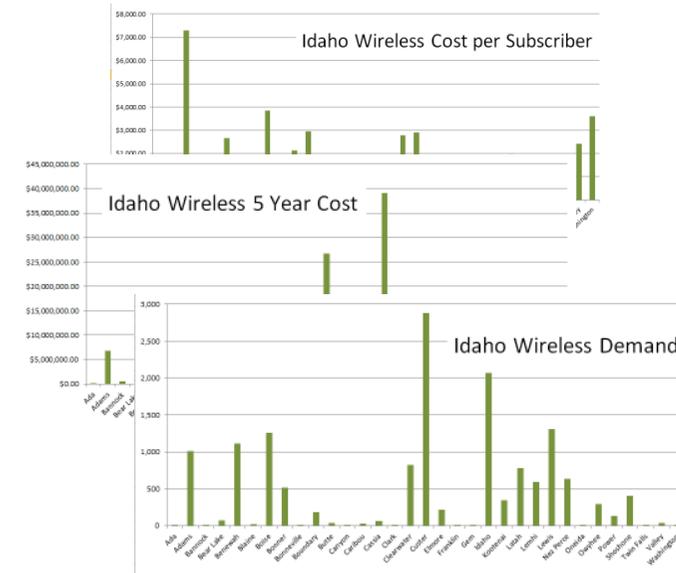
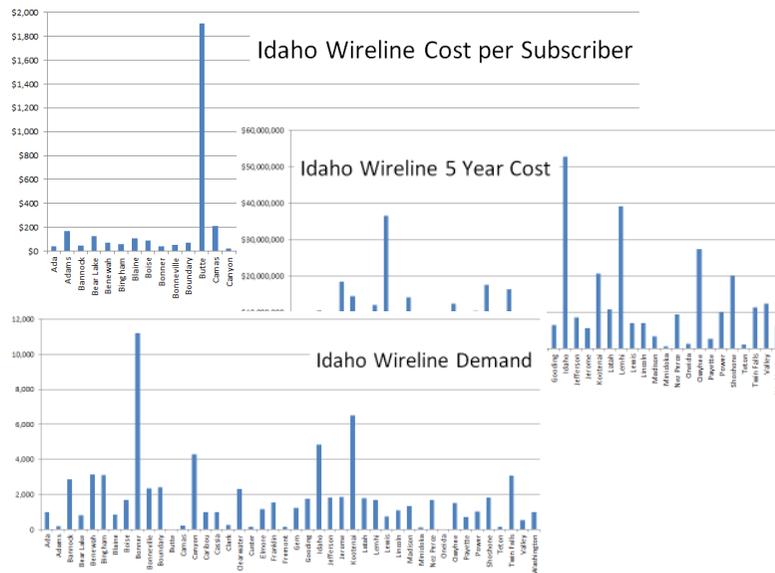
- Additional Model Results

Idaho
Wireline Cost Model Results
SS20121115COLLNov152012BmFidD
Full State - Census Tract Detail
Tract Results - Wireline Investment

Geographical Area		Potential Locations	Demand	Total Costs (Unservd)			Monthly Cost (Unservd)		
Region	County	CB Tract	Unservd Housing Unit and Unservd Businesses	Network Sizing Demand	Upfront Investment	Annual OPEX	5 Year Total Cost	Est. Monthly Cost	Est. Monthly Cost per Location
1	0009	0009940000	1,729	1,056	\$7,076,697.52	\$572,224.35	\$10,037,698.97	\$124,465.39	\$79.99
1	0009	0009950000	1,748	1,073	\$5,833,361.70	\$494,895.58	\$8,308,429.61	\$104,127.69	\$66.19
1	0007	0007950000	2,148	1,533	\$5,400,201.90	\$528,381.58	\$8,042,898.84	\$102,491.92	\$53.00
1	0007	0007960000	2,052	1,847	\$3,389,538.63	\$364,862.37	\$5,142,492.99	\$466,730.67	\$76.13
1	0007	0007950400	1,001	901	\$1,229,328.81	\$154,880.34	\$2,094,330.91	\$26,672.32	\$29.50
1	0007	0007950600	474	427	\$501,048.81	\$68,862.62	\$846,259.32	\$114,344.69	\$26.80
1	0007	0007950600	3,095	2,786	\$9,375,828.38	\$756,744.46	\$12,959,950.47	\$193,476.80	\$55.10
1	0007	0007950700	536	536	\$1196,831.38	\$110,568.13	\$1,794,372.03	\$22,896.66	\$42.53
1	0007	0007950800	2,045	1,841	\$3,010,292.38	\$347,927.91	\$4,749,931.92	\$62,312.17	\$33.86
1	0007	0007950900	1,038	986	\$1,058,620.72	\$145,463.29	\$1,786,237.36	\$23,982.16	\$26.14
1	0021	0021970000	998	998	\$5,056,541.67	\$387,951.78	\$6,996,320.79	\$186,259.45	\$186.04
1	0021	0021970200	1,681	1,613	\$4,542,828.23	\$440,038.46	\$7,143,085.54	\$190,877.59	\$159.55

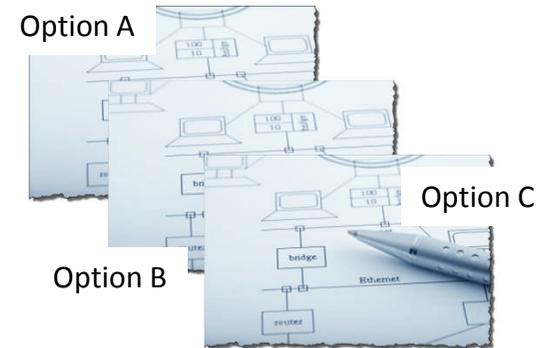
Variety of graphs and related raw data available in full release package.

Additional data available upon request (e.g., by Census Block).



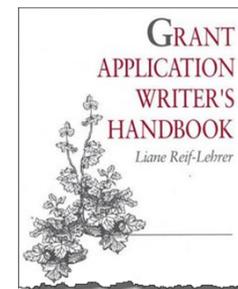
– Model application

Example: a **provider** wants to explore expanding their broadband reach in to one of three different areas. The cost model provides a credible and consistent first view of the likely outcomes in terms of (1) potential market (modeled subscribers), (2) initial investment required and (3) ongoing operating costs related to the core network.



Example: **city officials** want to explore arrangements (and potential incentives) with providers to bring broadband into their currently unserved community. The cost model provides an insider's view of the costs faced by the provider to extend their network into the town.

Example: a group of cities and towns have joined forces with a group of providers to pursue a **grant** to help fund the build-out of a broadband network in their area. The cost model provides a solid and compelling estimate of the costs faced by grant applicant partners.



– Model application

- Informing regional planning teams and initiatives
- Informing local government...city and county levels
- Informing state policy makers
- Informing discussions with Federal policy makers and regulators
- Informing subsidy considerations at the state level
- Supporting grant funding requests at all levels
- Assisting providers w/ build out opportunity analysis
- Supporting downstream applications and issues
 - e.g., FirstNet related considerations/plans
 - e.g., Bandwidth Assessment Tool
 - e.g., Impact Model

Bandwidth Assessment Tool

Helps business estimate bandwidth requirements (speed, technology, etc.) and better understand costs involved (1Q 2013)

Impact Model

Develops high level estimate (net of related costs) of new jobs and economic activity created by broadband investments (4Q 2013)