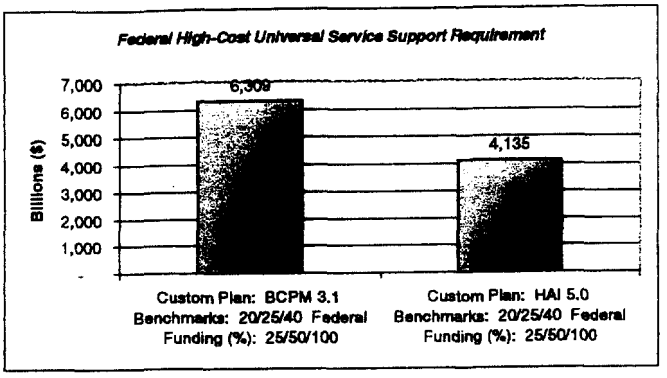
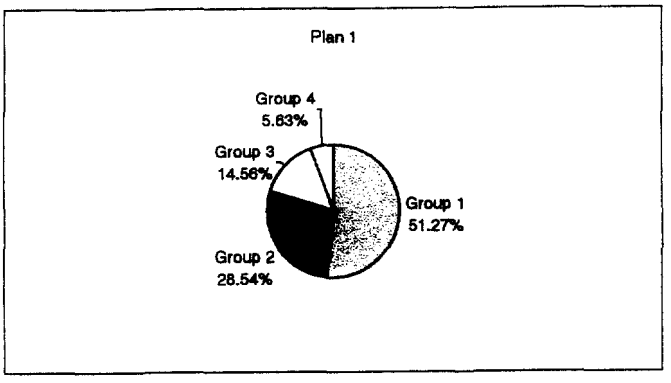
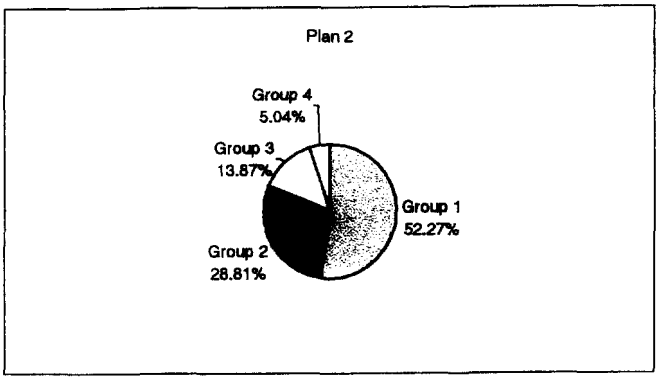
Federal High-Cost Universal Service Support Requirement - Results Comparison

	Plan A: Custom Plan BCPM 3.1 Benchmarks: 20/25/40 Federal Funding (%): 25/50/100		Plan B: Custom Plan HAI 5.0 Benchmarks: 20/25/40 Federal Funding (%): 25/50/100		Comparisons	
State	Amount	Percent of Total	Amount	Percent of Total	Difference (A - B)	Percentage Diff.: (A-B)/(B)
AK	1,959,104	0.03%	3,456,623	0.08%	(1,497,518)	-43%
AL	185,747,484	2.94%	150,874,579	3.62%	34,872,906	23%
AR	88,664,374	1.41%	54,149,582	1.30%	34,514,792	64%
AZ	112,284,806	1.78%	50,379,481	1.21%	61,905,325	123%
CA	374,001,038	5.93%	142,159,124	3.41%	231,841,914	163%
CO	120,870,184	1.92%	86,377,325	2.07%	34,492,859	40%
CT	39,776,581	0.63%	18,080,705	0.43%	21,695,876	120%
DC	277,255	0.00%	988,879	0.02%	(711,624)	-72%
DE	12,164,917	0.19%	6,332,392	0.15%	5,832,525	92%
FL	212,049,013	3.36%	102,385,145	2.45%	109,663,868	107%
GA	177,911,887	2.82%	111,201,172	2.67%	66,710,715	60%
HI	17,674,246	0.28%	17,005,212	0.41%	669,034	4%
IA	63,905,741	1.01%	38,520,797	0.92%	25,384,944	66%
ID	73,603,786	1.17%	45,762,318	1.10%	27,841,469	61%
IL	232,676,496	3.69%	132,798,520	3.18%	99,877,976	75%
IN	171,109,306	2.71%	95,940,992	2.30%	75,168,314	78%
KS	108,124,638	1.71%	70,099,953	1.68%	38,024,685	54%
KY	135,745,247	2.15%	90,263,712	2.16%	45,481,535	50%
LA	129,988,107	2.06%	86,204,286	2.07%	43,783,821	51%
MA	50,239,150	0.80%	21,252,014	0.51%	28,987,137	136%
MD	59,521,230	0.94%	38,207,411	0.92%	21,313,819	56%
ME	55,973,464	0.89%	44,635,362	1.07%	11,338,102	25%
MI	226,017,469	3.58%	107,224,316	2.57%	118,793,153	111%
MN	171,362,757	2.72%	139,745,728	3.35%	31,617,029	23%
MO	237,576,316	3.77%	200,557,868	4.81%	37,018,448	18%
MS	177,282,639	2.81%	156,169,213	3.74%	21,113,426	14%
MT	61,211,769	0.97%	34,097,822	0.82%	27,113,947	80%
NC	222,085,451	3.52%	196,174,469	4.70%	25,910,983	13%
ND	34,223,564	0.54%	23,202,588	0.56%	11,020,976	47%
NE	94,659,847	1.50%	89,805,498	2.15%	4,854,350	5%
NH	36,617,504	0.58%	27,011,538	0.65%	9,605,966	36%
NJ	43,519,567	0.69%	14,834,266	0.36%	28,685,302	193%
NM	65,036,632	1.03%	43,593,001	1.04%	21,443,631	49%
NV	32,348,991	0.51%	31,617,864	0.76%	731,127	2%
NY	168,858,331	2.68%	146,540,411	3.51%	22,317,920	15%
OH	239,439,527	3.80%	126,521,880	3.03%	112,917,648	89%
OK	138,494,786	2.20%	105,928,856	2.54%	32,565,930	31%
OR	61,828,464	0.98%	96,818,652	2.32%	(34,990,188)	-36%
PA	211,636,473	3.35%	140,694,001	3.37%	70,942,472	50%
PR	25,835,212	0.41%	40,426,109	0.97%	(14,590,897)	-36%
RI	11,068,861	0.18%	2,548,839	0.06%	8,520,023	334%
SC	86,521,442	1.37%	48,504,859	1.16%	38,016,583	78%
SD	43,298,725	0.69%	28,026,687	0.67%	15,272,038	54%
TN	148,554,999	2.35%	101,599,070	2.44%	46,955,929	46%
TX	645,064,895	10.22%	392,434,304	9.41%	252,630,591	64%
UT	31,688,382	0.50%	22,390,690	0.54%	9,297,692	42%
VA	190,987,906	3.03%	144,233,401	3.46%	46,754,505	32%
VT	32,499,708	0.52%	25,430,028	0.61%	7,069,680	28%
WA	159,656,894	2.53%	89,354,558	2.14%	70,302,336	79%
WI	140,583,503	2.23%	70,310,986	1.69%	70,272,517	100%
WV	93,744,573	1.49%	80,311,177	1.93%	13,433,396	17%
WY	53,102,947	0.84%	38,402,925	0.92%	14,700,022	38%
Grand Total	6,309,076,190	100.00%	4,171,587,181	100.00%	2,137,489,009	51%



For the charts below and table to the right,
Plan 1 = Custom Plan
Plan 2 = Custom Plan
Benchmarks: 20/25/40 Federal Funding (%): 25/50/100
Res Bmark Differs From Pub Bmark





Funding Area	Rank - Plan 1	Rank Plan 2	Ranking Effect
Group 1:			
TX	1	1	
MO	4	2	Differs by 2
NC	7	3	Differs by 4
MS	13	4	Differs by 9
AL	11	5	Differs by 6
NY	16	6	Differs by 10
VA	10	7	Differs by 3
CA	2	8	Differs by -6
MN	14	9	Differs by 5
PA	9	10	Differs by -1
IL	5	11	Differs by -6
OH	3	12	Differs by -9
GA	12	13	Differs by -1
Group 2:			
MI	6	14	Differs by -8
OK	20	15	Differs by 5
FL	8	16	Differs by -8
TN	18	17	Differs by 1
OR	33	18	Differs by 15
IN	15	19	Differs by -4
NE	26	20	Differs by 6
KY	21	21	
WA	17	22	Differs by -5
CO	23	23	
LA	22	24	Differs by -2
WV	27	25	Differs by 2
KS	25	26	Differs by -1
Group 3:			
WI	19	27	Differs by -8
AR	28	28	
AZ	24	29	Differs by -5
SC	29	30	Differs by -1
ID	30	31	Differs by -1
ME	36	32	Differs by 4
NM	31	33	Differs by -2
PR	47	34	Differs by 13
WY	37	35	Differs by 2
IA	32	36	Differs by -4
MD	35	37	Differs by -2
MT	34	38	Differs by -4
NV	45	39	Differs by 6
Group 4:			
SD	40	40	
NH	42	41	Differs by 1
VT	44	42	Differs by 2
ND	43	43	
UT	46	44	Differs by 2
MA	38	45	Differs by -7
CT	41	46	Differs by -5
HI	48	47	Differs by 1
NJ	39	48	Differs by -9
DE	49	49	
AK	51	50	Differs by 1
RI	50	51	Differs by -1
DC	52	52	

Federal High-Cost Universal Service Support Requirement - Results Comparison

[redacted]

You may analyze the effect of parameter changes by altering the values for specific states.

	State-Specific Override						
State	Cost Model (1 = BCPM, 2 = HAI)	Lowest BMRK Value (20-80)	Middle BMRK Value (20-80)	Highest BMRK Value (20-80)	FCC % Above Low BMRK Value (0-100)	FCC % Above Upper BMRK Value (0-100)	FCC % Above Upper BMRK Value (0-100)
AK	1	20	25	40	25%	50%	100%
AL	1	20	25	40	25%	50%	100%
AR	1	20	25	40	25%	50%	100%
AZ	1	20	25	40	25%	50%	100%
CA	1	20	25	40	25%	50%	100%
CO	1	20	25	40	25%	50%	100%
CT	1	20	25	40	25%	50%	100%
DC	1	20	25	40	25%	50%	100%
DE	1	20	25	40	25%	50%	100%
FL	1	20	25	40	25%	50%	100%
GA	1	20	25	40	25%	50%	100%
HI	1	20	25	40	25%	50%	100%
IA	1	20	25	40	25%	50%	100%
ID	1	20	25	40	25%	50%	100%
IL	1	20	25	40	25%	50%	100%
IN	1	20	25	40	25%	50%	100%
KS	1	20	25	40	25%	50%	100%
KY	1	20	25	40	25%	50%	100%
LA	1	20	25	40	25%	50%	100%
MA	1	20	25	40	25%	50%	100%
MD	1	20	25	40	25%	50%	100%
ME	1	20	25	40	25%	50%	100%
MI	1	20	25	40	25%	50%	100%
MN	1	20	25	40	25%	50%	100%
MO	1	20	25	40	25%	50%	100%
MS	1	20	25	40	25%	50%	100%
MT	1	20	25	40	25%	50%	100%
NC	1	20	25	40	25%	50%	100%
ND	1	20	25	40	25%	50%	100%
NE	1	20	25	40	25%	50%	100%
NH	1	20	25	40	25%	50%	100%
NJ	1	20	25	40	25%	50%	100%
NM	1	20	25	40	25%	50%	100%
NV	1	20	25	40	25%	50%	100%
NY	1	20	25	40	25%	50%	100%
OH	1	20	25	40	25%	50%	100%
OK	1	20	25	40	25%	50%	100%
OR	1	20	25	40	25%	50%	100%
PA	1	20	25	40	25%	50%	100%
PR	1	20	25	40	25%	50%	100%
RI	1	20	25	40	25%	50%	100%
SC	1	20	25	40	25%	50%	100%
SD	1	20	25	40	25%	50%	100%
TN	1	20	25	40	25%	50%	100%
TX	1	20	25	40	25%	50%	100%
UT	1	20	25	40	25%	50%	100%
VA	1	20	25	40	25%	50%	100%
VT	1	20	25	40	25%	50%	100%
WA	1	20	25	40	25%	50%	100%
WI	1	20	25	40	25%	50%	100%
WV	1	20	25	40	25%	50%	100%
WY	1	20	25	40	25%	50%	100%

Auction Proposal for Universal Service GTE

26 February 1998

Why an Auction?

- Market solution for setting support levels
  - » Ends arguments over cost models
    - – Bids reflect bidders' own cost expectations
  - » Ends argument about revenue benchmarks
    - – Bids reflect any follow-on revenue bidders expect
  - » Moves away from cost-of-service regulation
- Assures that support is sufficient
  - » Firms, not commission, specify support amount

Why an Auction? 2

- Promotes efficient supply
  - » Identifies low cost suppliers
- Helps minimize need for support
- Corrects any errors in initial support levels
- Adjusts to changes over time
  - » Technology, input prices, definition of universal service
  - » Eliminates need to update cost models

Who Would Conduct the Auctions?

- Cooperative effort by FCC and states
  - » Single auction for each small area to determine both Federal and State support
- FCC establishes guidelines; states participate on voluntary basis
  - » If state-sponsored auction meets FCC guidelines, then FCC shares responsibility with state to fund support determined by auction
  - » Auction administrator could be state staff, FCC staff, or third party

Background and Prerequisites

Context for the Auction

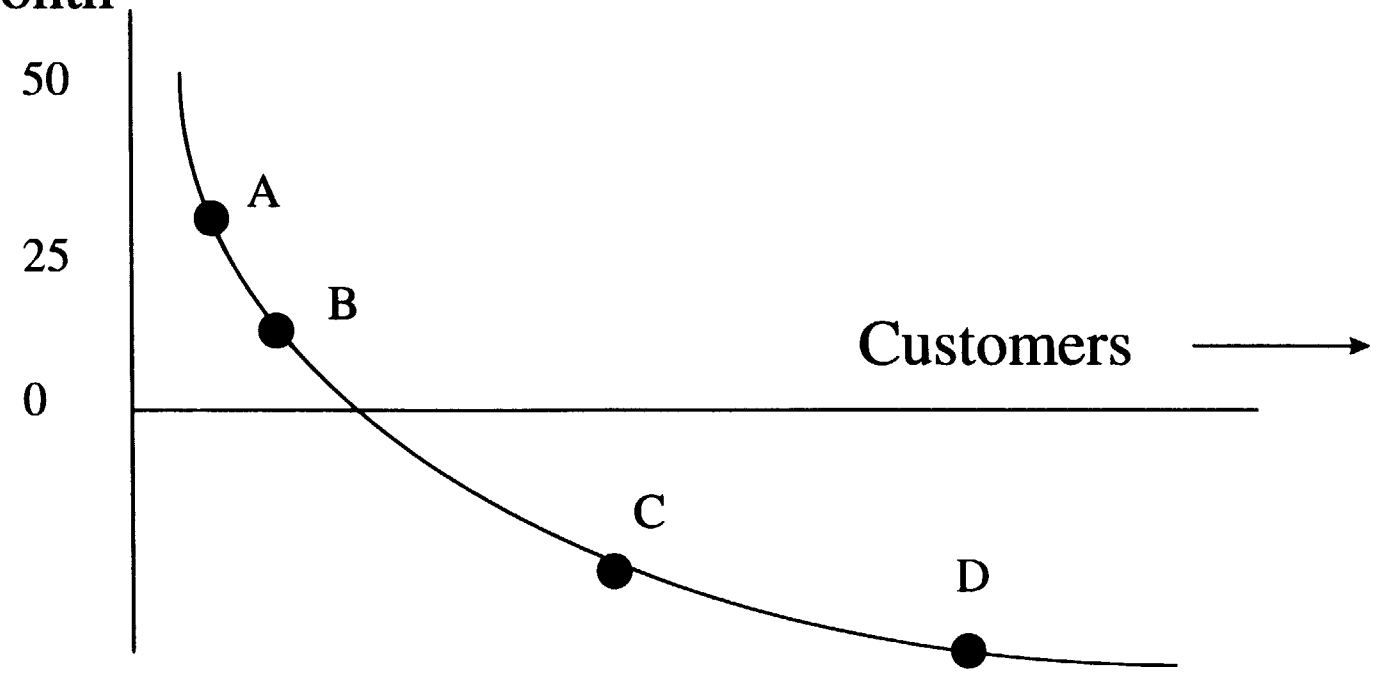
- Commission must define item to be auctioned
  - » COLR obligation in a small area
- Winner must be allowed to win
  - » CLEC winning auction acquires obligation
- Loser must be allowed to lose
  - » Losing ILEC must lose obligations and support
    - – ***Includes resale and unbundling obligations***
  - » Allows for exit

Context for the Auction, 2

- For competitive neutrality, each COLR in an area must have
  - » Same obligation
  - » Same support
- COLR must offer service package that:
  - » Includes defined universal service
    - – Can include other features; allows for "hybrid" service
  - » Is affordable
    - – Price no higher than ceiling set by state

Ordering of Customers within a Service Area, By Support Need

- Support Needed, $/month



Why an Obligation to Serve?

- **Customers within an SA are heterogeneous**
  - » Some variation in cost
  - » Large variation in demand, revenue
- **Support must be an average amount for SA**
  - » Not practical to calculate exact support for each customer
- **In absence of obligation, less desirable customers will not be served**
  - » If only ILEC has obligation, others will cherry-pick more desirable customers (C and D), leave less desirable customers (A and B) for ILEC
  - » Support will be insufficient for ILEC, even if correct on average

Initial Support Levels

- Based on comparison of cost and rates for defined local service
-
- Available to ILEC prior to auction
-
- When new firm enters and nominates area for bidding, auction is held
  - » Auction result replaces initial support

Auction Elements

- Certification of Qualified Bidders
- Determination of Areas to be Auctioned
- Auction Rules
- Post-Auction Implementation

Certification of Qualified Bidders

- Carrier must be an Eligible Telecommunications Carrier ("Eltel")
- Must be willing to undertake COLR obligation specified by state PUC
- PUC may wish to verify bidder's capability to perform as COLR

Auction Design Objectives

Objectives considered in optimization:

- Promote competition "in the market" where feasible:
  - » Ex post competition among COLRs
- Promote efficient supply
  - » By choosing most efficient firms
- Keep support as low as possible
  - » Auction allows competition "for the market"
  - » To minimize deadweight losses
  - »

Auction Design Objectives, 2

- **Other design objectives:**
  - Avoid collusion
  - Simplify administration and bidding
  - Assure competitive neutrality "for" and "in" the market
  - Allow for withdrawal of incumbent COLRs
  - Choose COLRs for unserved areas
- **Already mentioned:**
  - Assure sufficiency
  - Correct support that is too high or too low
  - Reflect changes over time in costs, technology, service definition

Nominations, ILEC Exit and Bidding

Nomination of Areas for Bidding

- **Twice yearly window for Qualified Bidders ("QBs") to nominate areas**
  - » Each QB may nominate any number of small areas ("SA s")
  - » QB deposits $1000 per area nominated , refundable if the QB submits a valid bid
- **Nominations not accepted for SAs auctioned within last three years**
  - » If auction changed number or identity of COLRs
- **If there is only one COLR (e.g., the ILEC) in an SA, it may not nominate the SA, except by applying to exit (see next slide).**

ILEC Exit

- **After nominations are closed and announced, a sole COLR may apply to exit.**
- **If the sole COLR applies to exit, the CPUC asks if any other QB is willing to become COLR at current support level.**
  - » If more than one QB volunteers, these QBs enter an auction
    - The current COLR is excluded
    - The reserve is equal to the current support level
  - » If one QB volunteers, then
    - That QB becomes COLR at current support level
    - ILEC receives no support and loses COLR obligations
  - » If no takers, the SA is deemed nominated for auction

State PUC Tasks

- **PUC may nominate some areas on its own motion in limited circumstances**
  - » Initially, in areas where multiple COLRs already receive support
  - » At any time, for unserved areas
- **After nominations, CPUC publishes list of SAs and firms who nominated them**
  - » Announces reserve support level for each SA
    - Reserve is a multiple of the current support level
  - » Opens window for firms to register for bidding
  - »

The Bidding Process

- Single round, sealed-bid auction
  - » Less vulnerable to collusion
  - » Simpler for administrators and for bidders
  - »
- Separate bids for each SA
- Form of bid is per-customer support amount

The Bidding Process,2

- Each bidder submits two bids:
  - » First element is per customer amount QB would need if it were the only COLR
  - » Second element is the per customer amount QB would need if it shared COLR obligation with other carriers
  - »
- Two elements allow auction to reflect carriers' economies of density

Determination of Winners

- Lowest bidder is QB submitting lowest first element
  - » Lowest bidder is declared a COLR
  - »
- Other bids accepted if within specified range of lowest bid
  - » Determined by comparing other bidders' second element with lowest bid

Determination of Winners, 2

- **To determine if other COLRs are accepted** :
  - » 1) If the second element of at least one competing bid does not exceed the lowest first element by more than 15% of the sum of the lowest bid and the basic service price, then any bid whose second element falls within that range will be accepted
  - » 2) If no competing bids are in the range described in 1, but at least one bid is within 25% of the sum of the lowest bid and the basic service price, the two lowest bidders will be declared COLRs
  - » 3) Otherwise, only the lowest bid is accepted