

Survey:

Installed Optical Fiber Cabling Distances

Prepared: HSSG Fiber Optic Cabling Ad Hoc

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Survey Purpose:

- characterize the lengths and type of installed optical fiber used in commercial building telecommunication designs for input to HSSG media and link distance objectives

Survey Process:

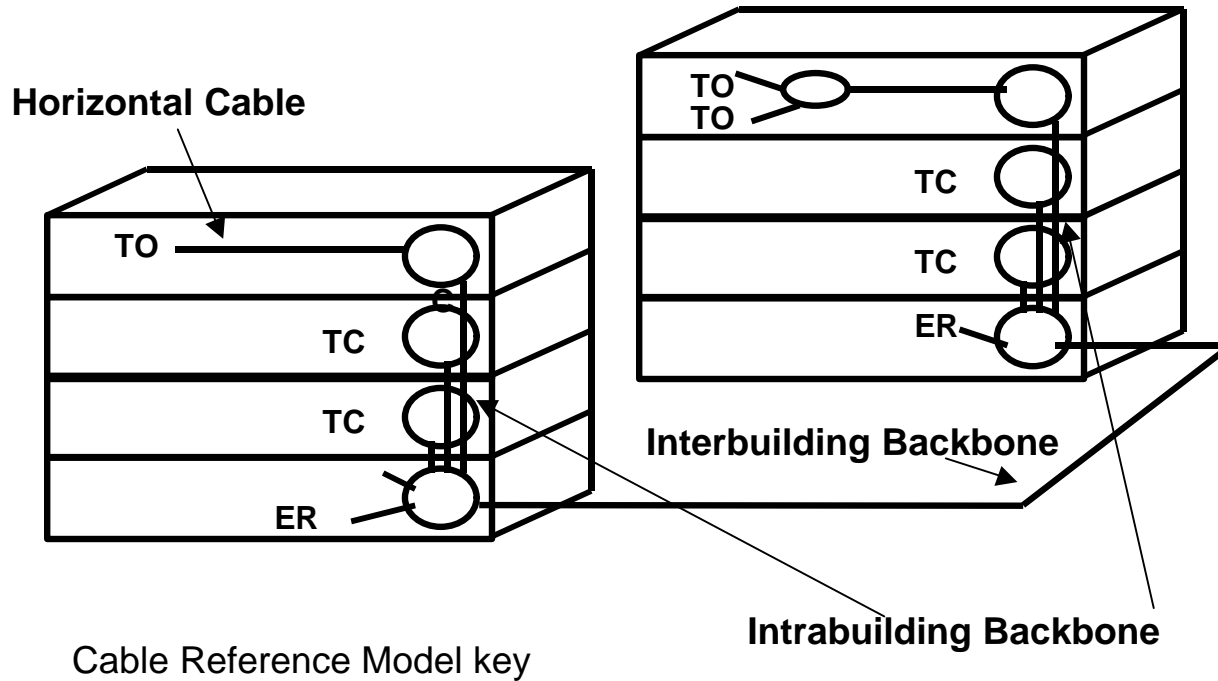
- target network managers that have detailed measured data about installed cabling, specifically: sites with OTDR certification data bases.

HSSG Optics-Media-Distance Spreadsheet

<i>Name</i>	<i>SMF</i>	<i>MMF 62.5um 160MHzkm@850nm 500MHzkm@1300nm</i>	<i>New MMF 50um 2200MHzkm@850nm 500MHzkm@1300nm</i>	<i>Wave Length</i>	<i>Baud Rate</i>	<i>Votes of 62 Voters</i>	<i>Order of Rating</i>
8λ-WWDM SW		200m		850nm	1.5G	3	14
4λ-WWDM-LW	40km	300m		1300nm	3.125G	35	4
4λ-WWDM-SW				850nm	3.125G	6	12
4λ-WDM PAM5 LW		500m	500m	1300nm	1.25G	5	13
4λ-WDM PAM5 SW				850nm	1.25G	3	14
PAM5 Serial LW	40km	500m		1300nm	5G	13	8
PAM5 Serial SW		160m		850nm	5G	10	9
5λ-WDM LW	60km	300m		1300nm		7	11
12-Ch VCSEL SW			225m Ribbon	850nm		3	14
4-Ch VCSEL SW			300m Ribbon	850nm		14	7
2λ-WDM PAM5 LW	40km	1km	1km	1300nm	2.5G	9	10
2λ-WDM PAM5 SW		320m		850nm	2.5G	3	14
Serial FP LW	2km	85m	85m	1300nm		41	2
Serial DFB LW or VCSEL	10km	85m	85m	1300nm		52	1
Serial Cooled DFB LW	40km	85m	85m	1300nm		25	5
Serial SW		25m	300m	850nm		38	3
Serial LW	40-80km			1550nm		22	6

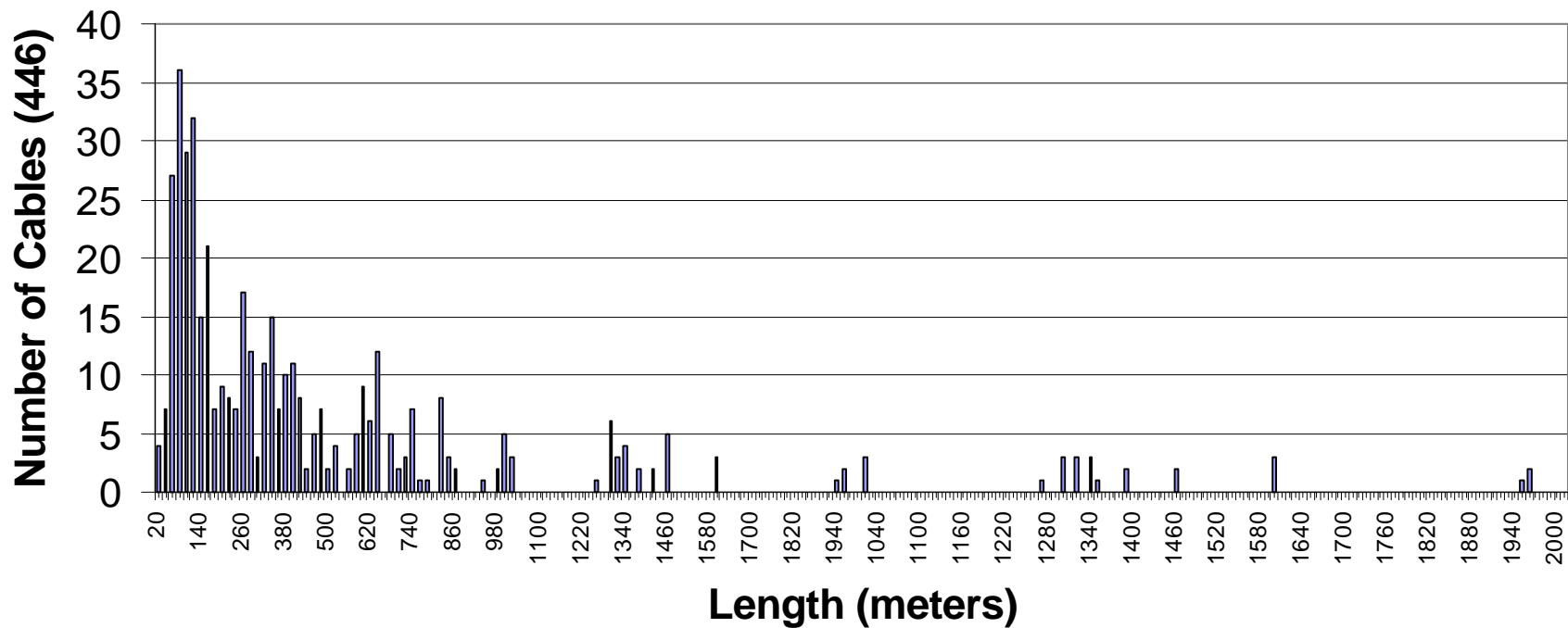
TIA/ EIA- 568- A Commercial Building Telecommunications Cable Standard

Figure 1.

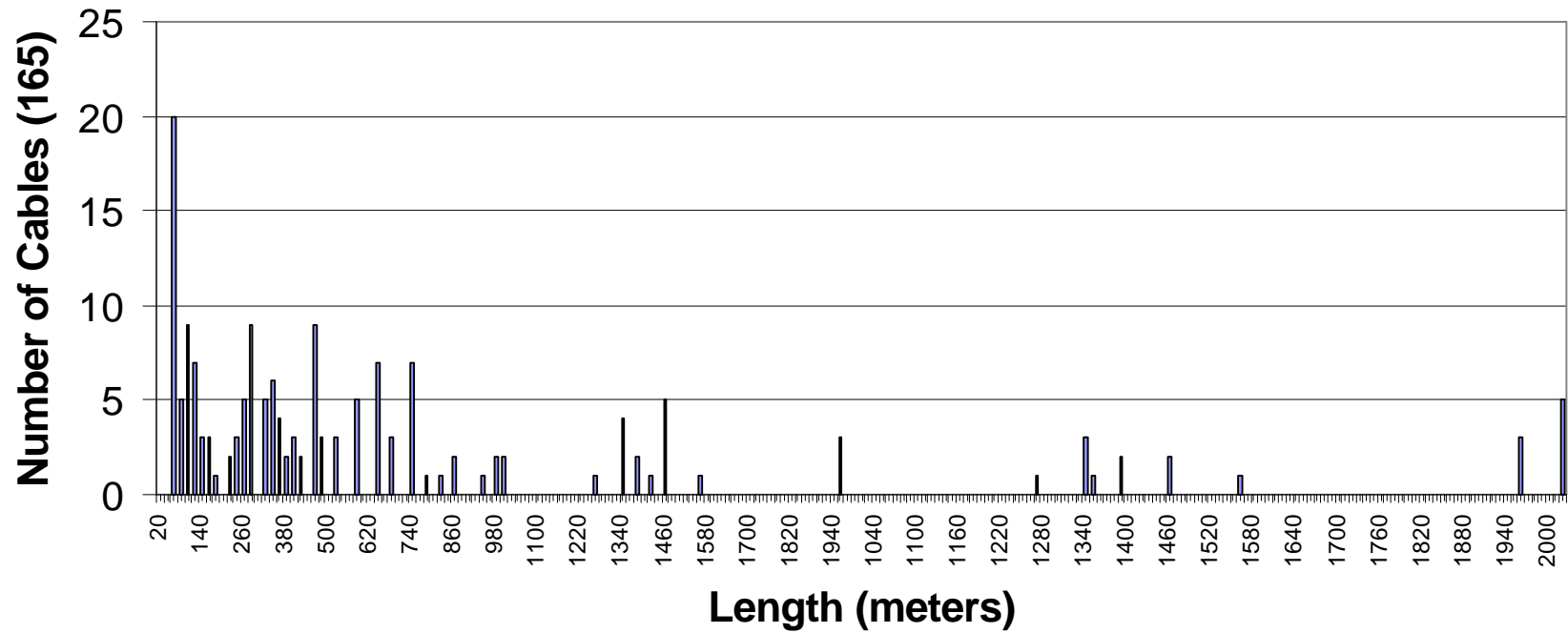


ER = Equipment Room
TC = Telecommunication Closet
TO = Telecommunication Outlet

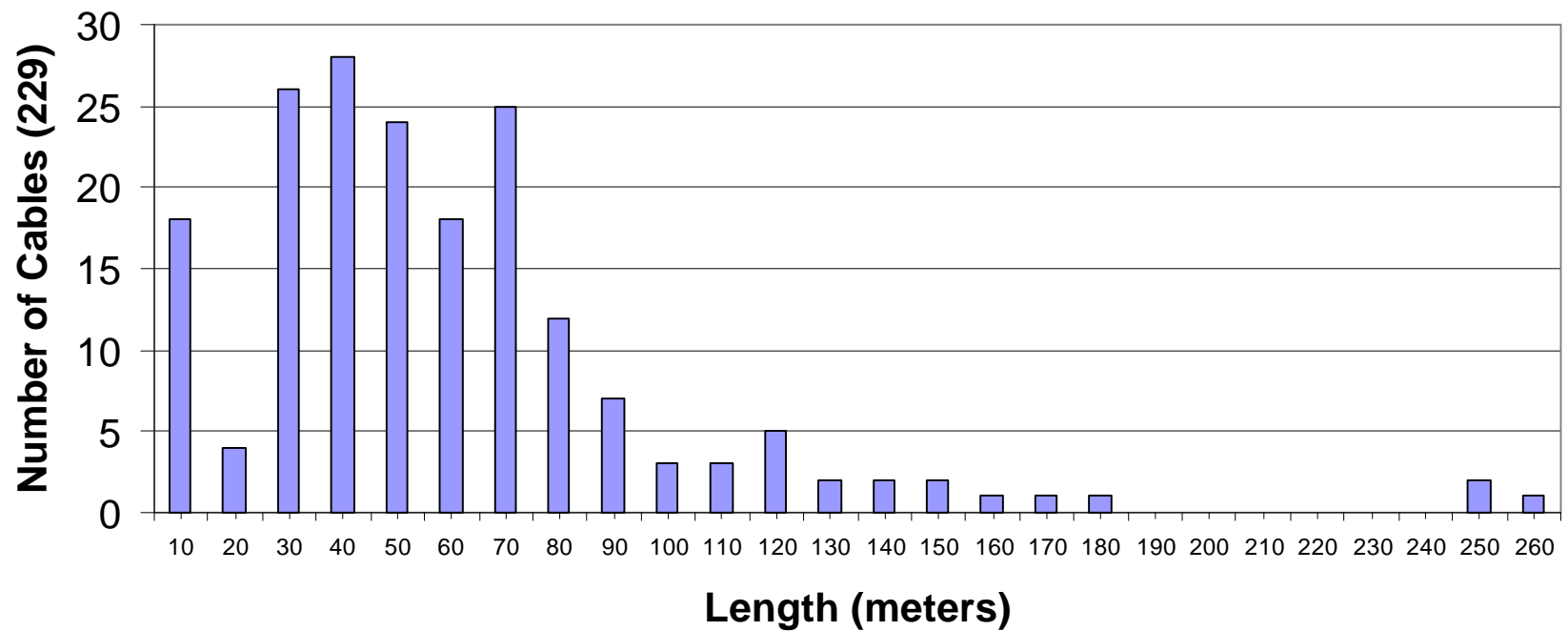
62.5/125 MMF Interbuilding Backbone Distances



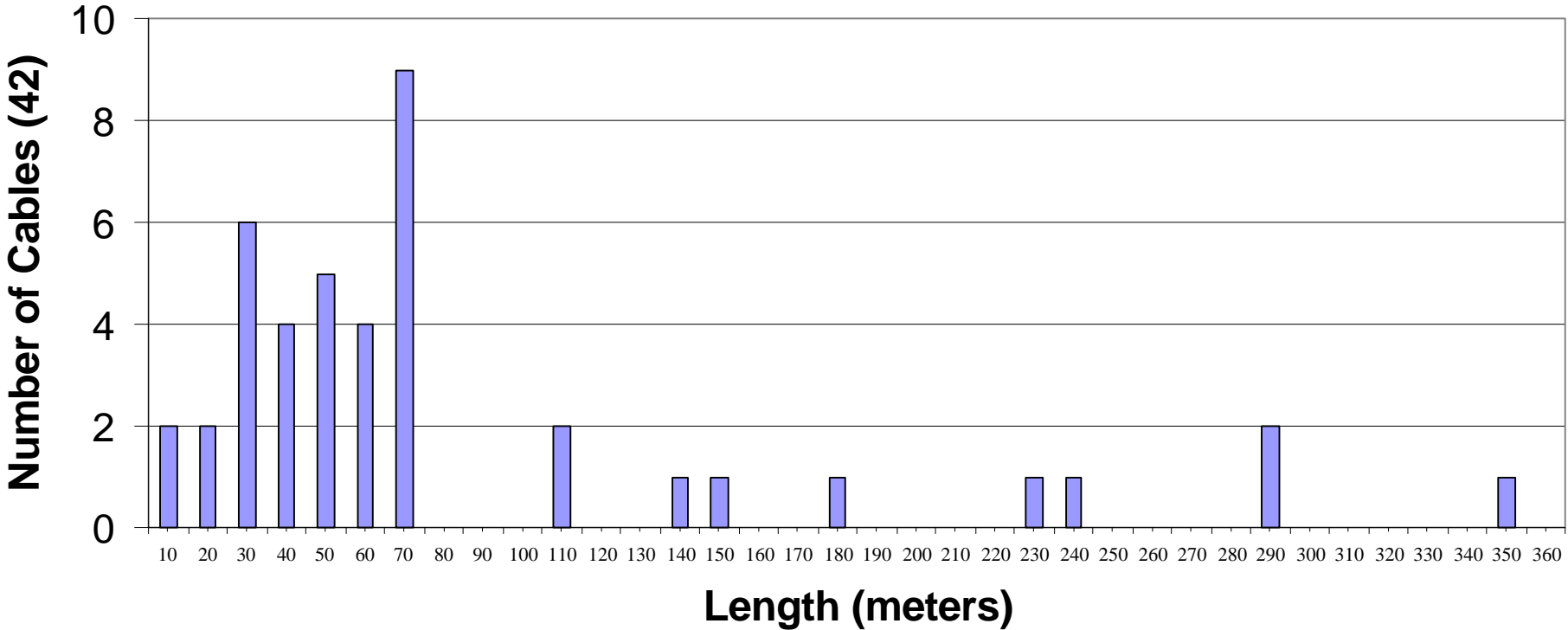
Singlemode Interbuilding Backbone Distances



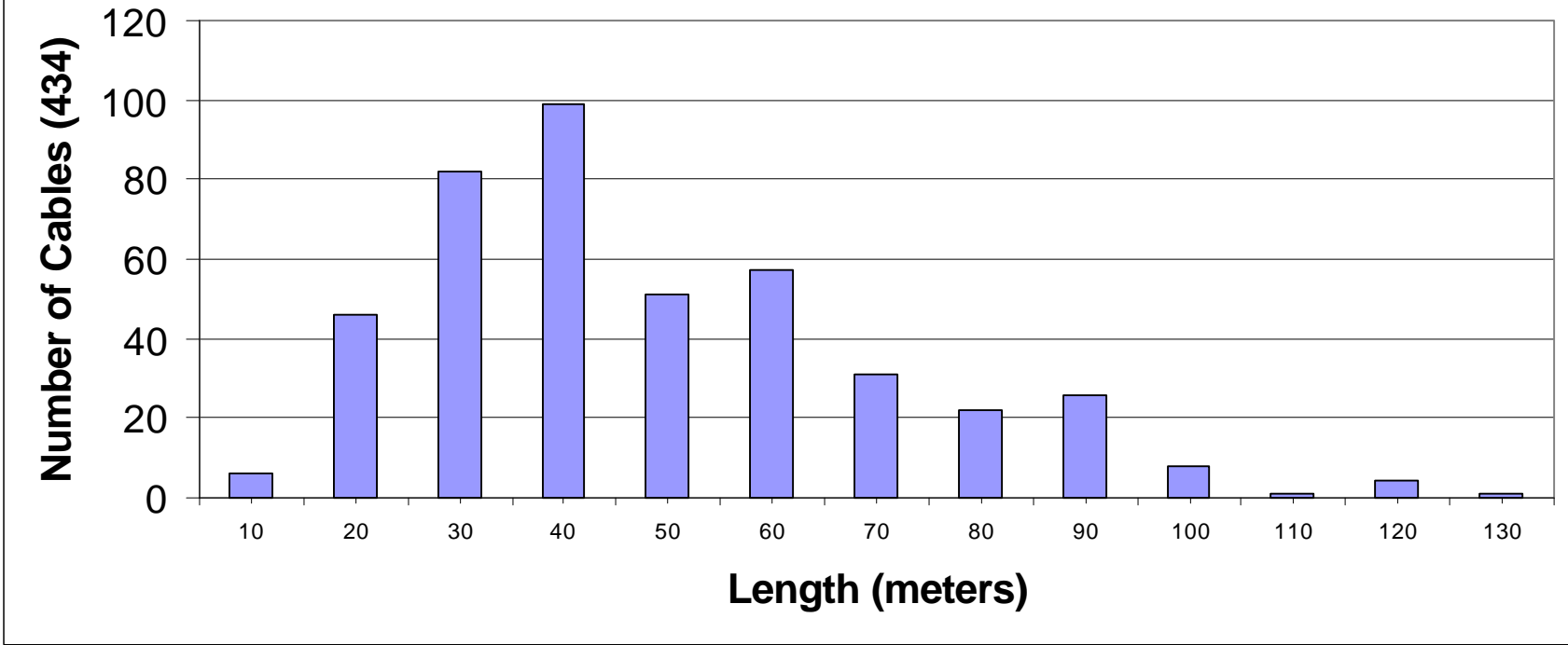
62.5/125 MMF Intrabuilding Backbone Distances



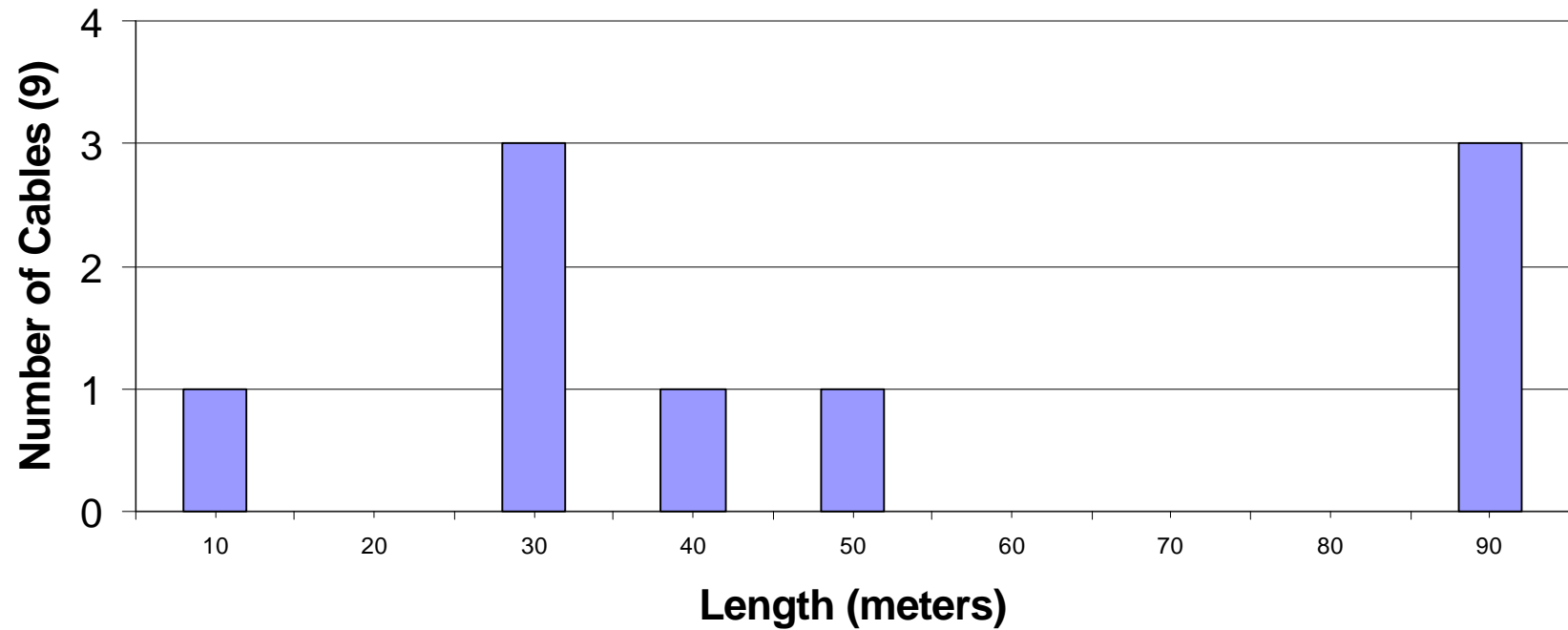
Singlemode Intrabuilding Backbone Distances



62.5/125 MMF Horizontal Distances



Singlemode Horizontal Distances



5. New Cabling

5.1. Please rank the difficulty in adding additional cable (1 -3) where 1 is the most difficult ?

- Interbuilding building backbone-----> 1
- Intrabuilding building backbone -----> 2
- horizontal cable -----> 3

5.2. Would you install higher performance multimode fiber optic cable for 1 Gigabit Ethernet if it supported your cable distances (y/n)?

- Interbuilding building backbone-----> 3y/7n/1
- Intrabuilding building backbone -----> 7y/4n
- horizontal cable-----> 8y/2n/1na

5.3. Would you install higher performance multimode fiber optic cable for 10 Gigabit Ethernet if it supported your cable distances (y/n)?

- Interbuilding building backbone-----> 9y/2na
- Intrabuilding building backbone -----> 11y
- horizontal cable-----> 8y/2n/1na

Survey Participants:

3Com

Argonne National Laboratory

Corning

Lucent

Lawrence Berkeley National Laboratory

Ortel Corporation

Riser Management

Thomas Jefferson National Accelerator Facility