



Project X

RD&D Resource Requirements

Elaine McCluskey (AD)
Accelerator Advisory Committee
May 6, 2008



Project X Resources - RD&D Plan



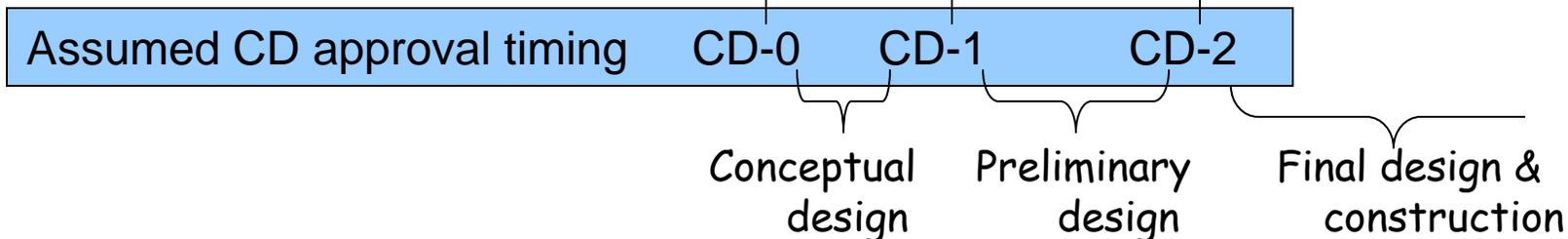
- Overall RD&D resource requirements are outlined in January 08 R&D Plan
- Covers period from present through preliminary design (project baseline approval)
- Developed using
 - Very general resource categories
 - Top down estimating by Fermilab-identified managers for each system
 - Assumed target dates for DOE CD approvals
 - Funding profile guidance from Directorate for FY08-FY11



RD&D Resource Requirements



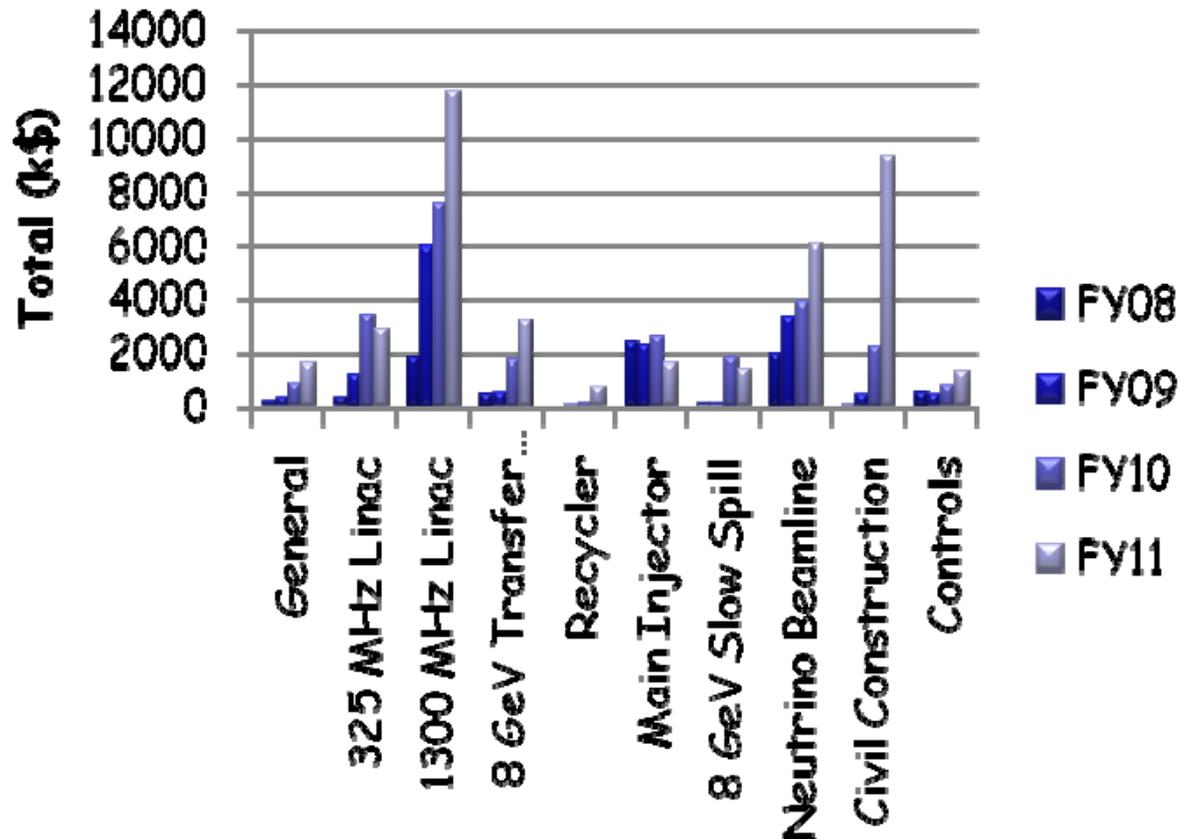
Project X R&D Plan Budget Profile							
(Dollar amounts in millions, fully burdened)							
	FY08	FY09	FY10	FY11	FY12		TOTAL
SWF	\$6.7	\$10.5	\$19.1	\$26.3			\$62.6
M&S	\$1.5	\$4.9	\$6.2	\$13.7			\$26.3
TOTAL	\$8.1	\$15.5	\$25.4	\$40.0			\$88.9



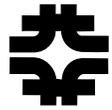
- Changed from January - M&S not available FY08
- FY11 work assumed to be done with Planning Engineering & Design (PED) funding
- Aggressive schedule
- Physicists not costed to project, but effort captured



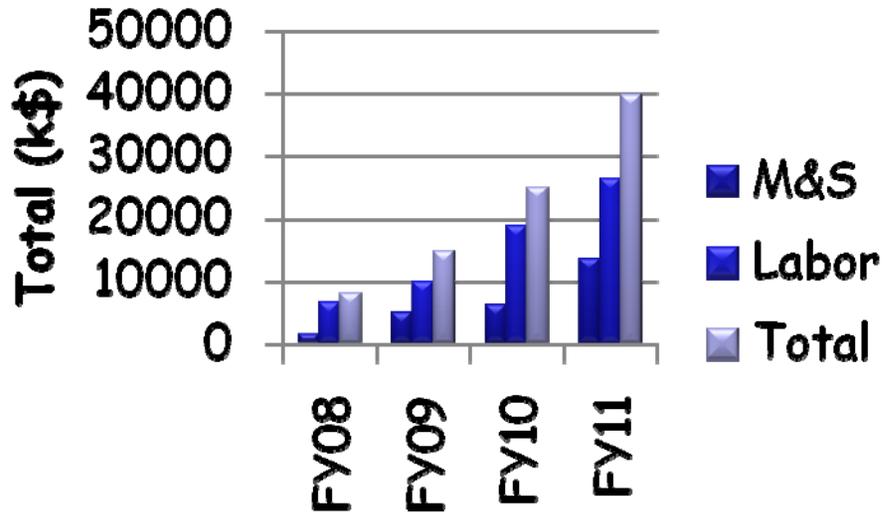
RD&D Resource Requirements by System



- Most resources req'd for 1300 MHz Linac, then Neutrino Beamline
- Includes labor from collaborators

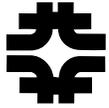


RD&D Resource Requirements - FY and Total

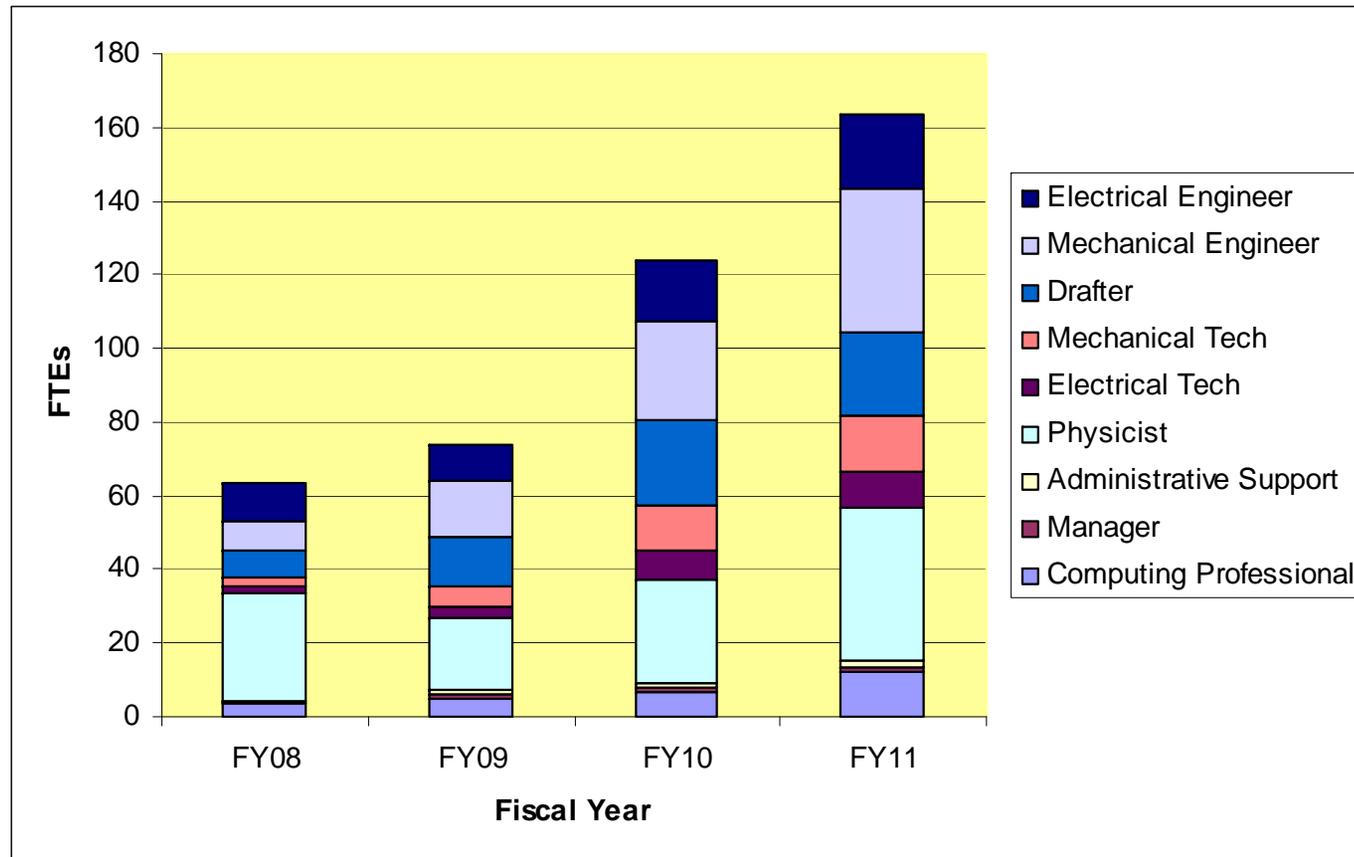


		Total \$k	M&S \$k	Labor \$k	Labor FTE
1	General	\$3,009	\$0	\$3,009	33
2	325 MHz Linac	\$7,809	\$1,140	\$6,669	40
3	1300 MHz Linac	\$27,022	\$6,045	\$20,977	130
4	8 GeV Transfer Line	\$5,942	\$100	\$5,842	41
5	Recycler	\$943	\$95	\$848	6
6	Main Injector	\$8,890	\$2,925	\$5,965	49
7	8 GeV Slow Spill	\$3,452	\$0	\$3,452	28
8	Neutrino Beamline	\$15,221	\$4,440	\$10,781	72
9	Civil Constn	\$12,107	\$6,705	\$5,402	15
10	Controls	\$3,134	\$75	\$3,059	14
		\$87,529	\$21,525	\$66,004	428

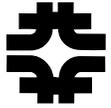
- M&S to labor ratio may be low
- No contingency included



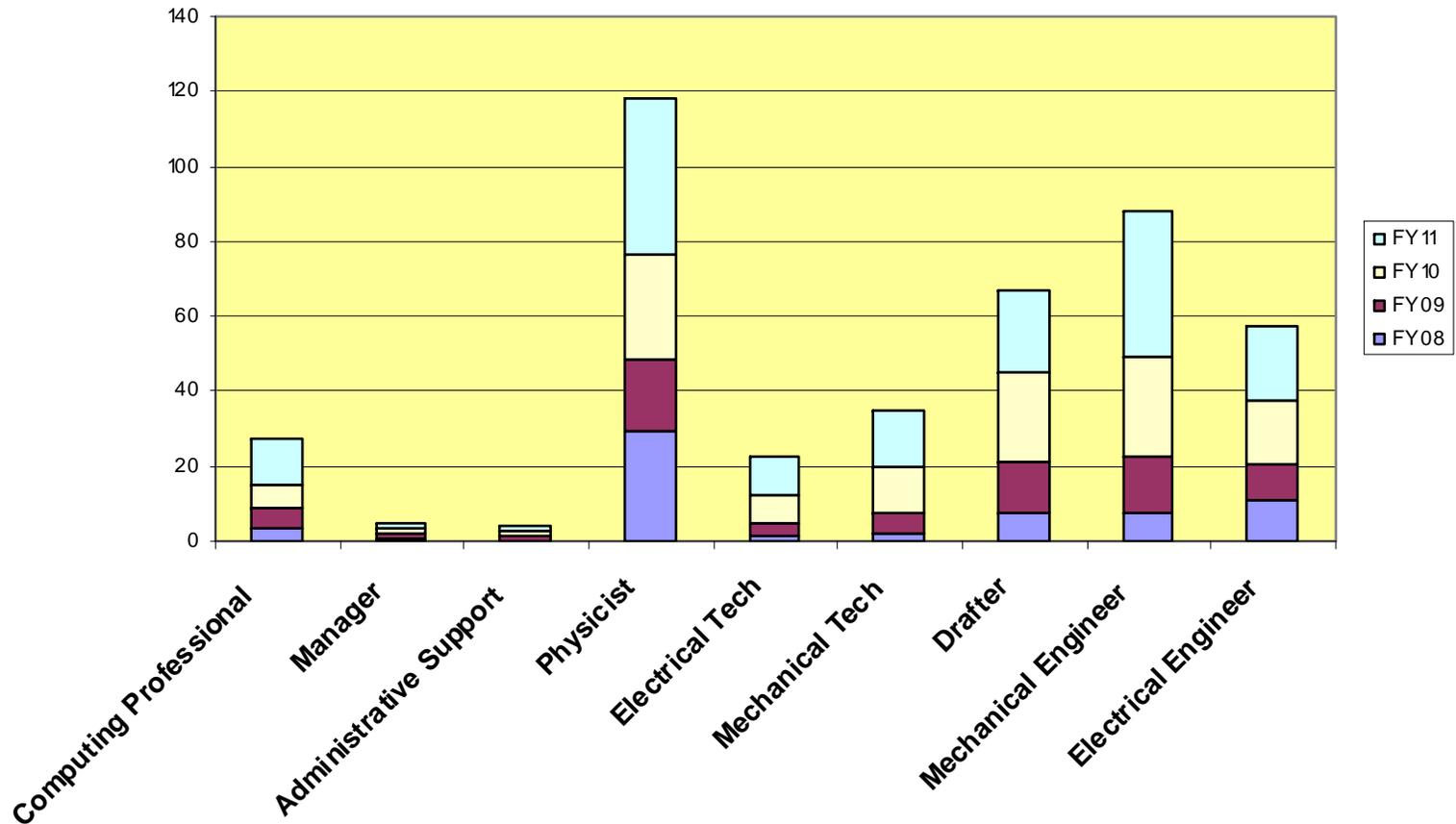
RD&D Labor Requirements - Fiscal Year



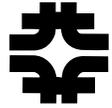
- General labor categories
- Includes labor from collaborators



RD&D Labor Requirements - Resource Type



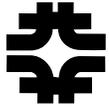
- Largest effort by Physicists, followed by Mechanical Engineers
- Includes labor from collaborators



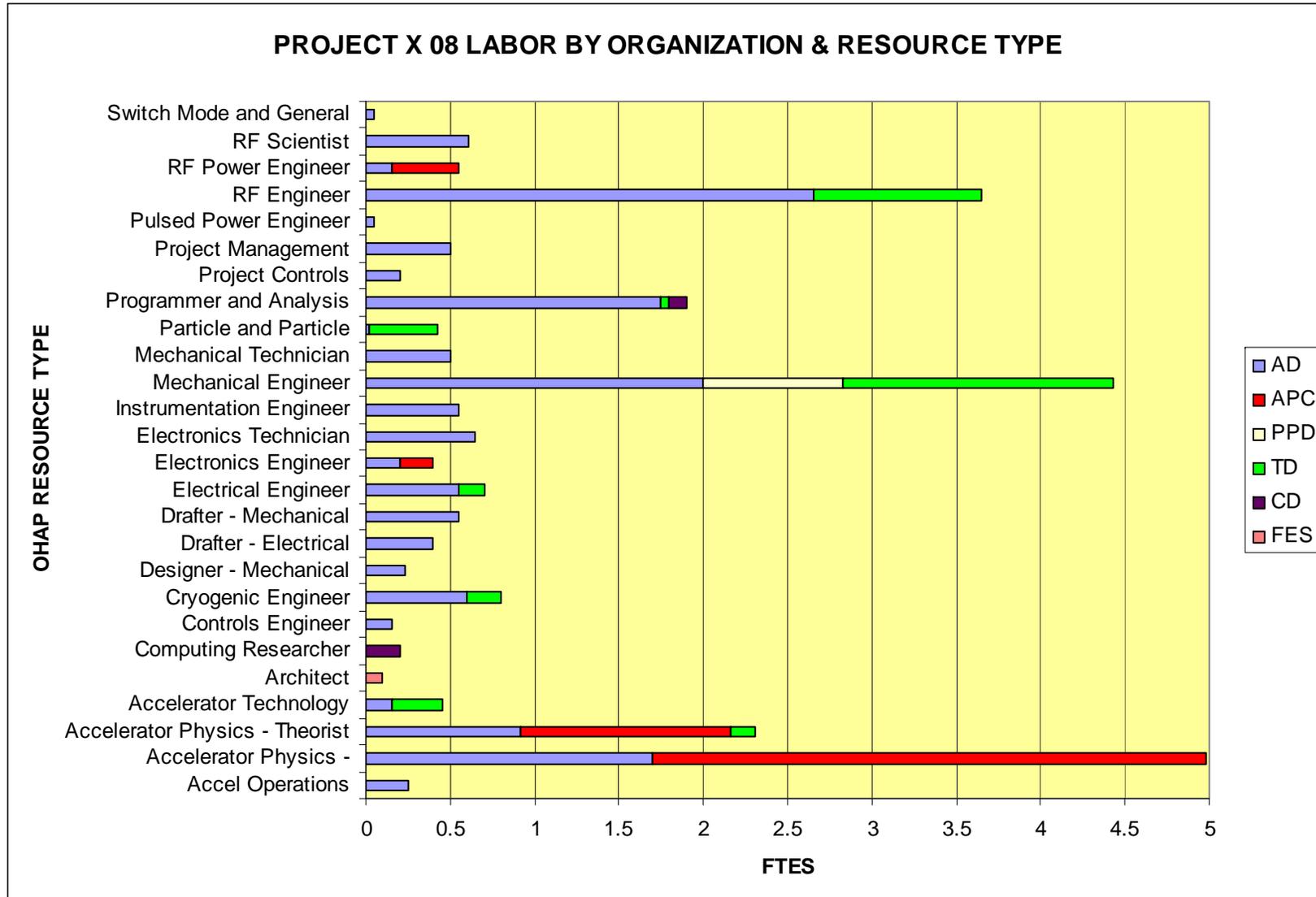
FY08 Resource Requirements



- Only part of FY08
 - 6 months only (April - September)
 - ~ $\frac{1}{2}$ of RD&D Plan for FY08
- Fermilab labor only
 - no M&S
 - no collaborators
- Summarized after identifying
 - Specific goals to be achieved
 - People needed to get there
- Includes separate WBS for Cryo Systems
- Uses more specific Fermilab OHAP labor categories and Fermilab organizations

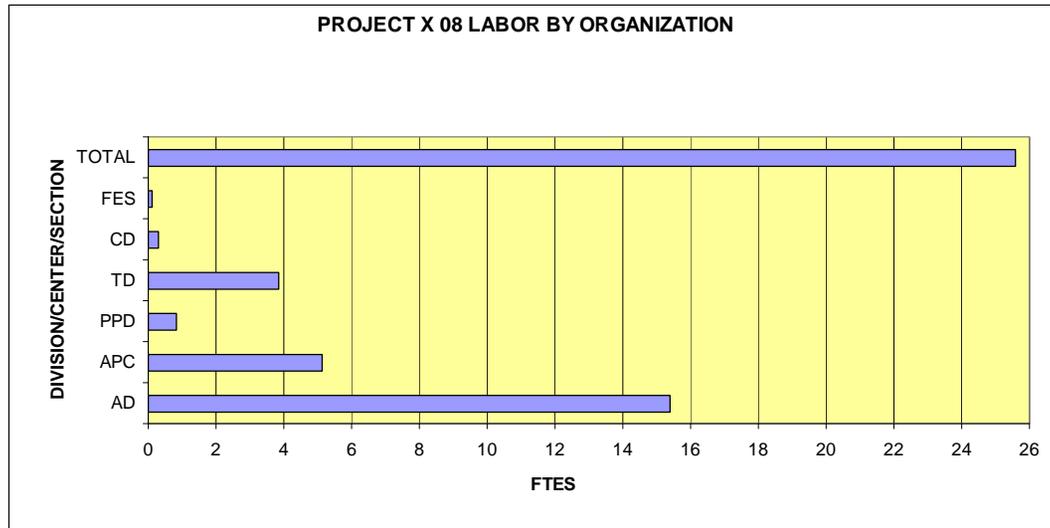


FY08 Resources - Fermilab labor





FY08 Resources - Fermilab labor



- ~ 26 FTEs
- ~ 90 individuals

