Total Project Cost in FY02 k$

Includes G&A, contingency

FY02 k$	Base	Cont %	Cont	Total
Silicon	14208	54	7712	21920
Trigger	3076	47	1459	4535
Online	942	48	453	1395
Administrative	1109	50	554	1663
TOTAL PROJECT COST	19335	53	10178	29513

Cost by subsystem

FY02 k$	M&S + R&D Cost	G&A	Cont %	Cont	Cost+ Cont Total	Total M&S + R&D	Labor FNAL	G&A	Cont %	Cont	Cost+ Cont Total	Total Labor	Total
Silicon	8188	992	55	5048	13237	14228	3909	1119	53	2663	6572	7691	21920
Trigger	2739	211	48	1415	4153	4364	98	28	35	44	142	171	4535
Online	605	107	51	363	968	1075	179	51	39	90	269	320	1395
Administrative	89	15.8	50	52	141	157	781	223	50	502	1283	1506	1663
TOTAL PROJECT COST	11621	1326	53	6878	18499	19825	4967	1422	52	3300	8267	9688	29513

Cost broken out into M&S + R&D, FNAL labor

Fermilab G&A rates applied

	EQUIPMENT	LABOR
G&A	17.72%	28.62%

Total Project Cost in AY k$

Includes G&A, contingency, & escalation

AY k$	Base	Cont %	Cont	Total
Silicon	14757	55	8178	22935
Trigger	3189	48	1540	4728
Online	1014	48	489	1503
Administrative	1197	51	607	1803
TOTAL PROJECT COST	20156	54	10814	30970

Cost by subsystem

AY k$	M&S + R&D Cost	G&A	Cont %	Cont	Cost+ Cont Total	Total M&S + R&D	Labor FNAL	G&A	Cont %	Cont	Cost+ Cont Total	Total Labor	Total
Silicon	8386	1047	56	5286	13672	14719	4139	1185	54	2892	7031	8215	22935
Trigger	2831	220	49	1491	4322	4542	107	31	35	49	156	186	4728
Online	646	114	51	389	1035	1150	197	56	39	100	297	353	1503
Administrative	94	16.6	51	56	149	166	845	242	51	551	1396	1638	1803
TOTAL PROJECT COST	11956	1398	54	7223	19179	20577	5288	1513	53	3591	8879	10392	30970

Cost broken out into M&S + R&D, FNAL labor

FNAL ESCALATION RATES		FY01	FY02	FY03	FY04	FY05	FY06
EQUIPMENT	BY YEAR	-2.9%	N/A	2.3%	2.8%	2.7%	2.6%
	CUMULATIVE	0.971	1	1.023	1.052	1.080	1.108
LABOR	BY YEAR	-4.0%	N/A	4.0%	4.0%	4.0%	4.0%
	CUMULATIVE	0.960	1	1.040	1.082	1.125	1.170

Total Project Cost = $30,970k
Includes 54% contingency ($10,814k)
Contingency consistent with April '02 Dir Rev guidance (57%)

Obligation Profiles in AY k$

Obligation Profile AY k$ (by subsystem)	FY01	FY02	FY03	FY04	FY05	FY06	TOTAL
Silicon (incl. G&A and FNAL labor)	17	1326	6171	4034	709	354	12611
Trigger (incl. G&A and FNAL labor)	0	453	1040	1561	109	0	3163
Online (incl. G&A and FNAL labor)	0	0	64	331	619	0	1014
Administration (incl. G&A and FNAL labor)	0	0	385	399	413	0	1197
Sub Total	17	1778	7660	6325	1850	354	17985
R&D (incl. G&A and FNAL labor)	0	1376	795	0	0	0	2171
Contingency	0	0	3645	3143	4026	0	10814
Total Project Cost	17	3154	12100	9468	5876	354	30970
Percentage by FY	0	10	39	31	19	1	

Obligations by subsystem w/R&D and contingency broken out

Obligation Profile AY k$ (by funding type)	FY01	FY02	FY03	FY04	FY05	FY06	TOTAL
M&S (incl. cont and In-Kind contr.)	17	1778	7960	5413	3102	0	18270
R&D (incl.cont. on R&D)	0	662	247	0	0	0	909
FNAL Labor (M&S and R&D, incl. Cont)	0	464	2941	3048	2426	0	8879
G&A (on M&S and R&D)	0	250	951	1007	349	354	2912
TOTAL	17	3154	12100	9468	5876	354	30970

Obligations broken out by funding type

Tables include G&A, contingency, & escalation

Funding Need in AY k$

Includes G&A, contingency, & escalation

TPC, Funding Need In AY k$	FY01	FY02	FY03	FY04	FY05	FY06	TOTAL
Silicon (incl. Cont + G&A)	17	1326	8963	6382	3428	354	20470
Trigger (incl. Cont + G&A)	0	453	1423	2142	676	0	4693
Online (incl. Cont + G&A)	0	0	84	418	1002	0	1503
Administration (incl. Cont + G&A)	0	0	507	527	770	0	1803
Total Project	17	1778	10977	9468	5876	354	28470
R&D (incl. Cont + G&A)	0	1376	1123	0	0	0	2499
Total Project Cost	17	3154	12100	9468	5876	354	30970
DOE M&S	0	0	4615	4533	3057	2000	14205
DOE SWF	0	0	2229	3048	2426	0	7702
DOE G&A	0	0	788	1007	349	354	2498
TOTAL DOE EQ	0	0	7631	8588	5832	2354	24406
DOE M&S R&D	0	662	247	0	0	0	909
DOE SWF R&D	0	464	713	0	0	0	1177
DOE G&A R&D	0	250	163	0	0	0	413
TOTAL DOE R&D	0	1376	1123	0	0	0	2499
In Kind - Foreign	0	258	267	70	1	0	597
In Kind - MRI silicon	17	1326	811	306	0	0	2460
In Kind - MRI trigger	0	0	114	474	0	0	588
In Kind - US base	0	194	153	30	43	0	420
Total In-Kind contributions	17	1778	1345	880	44	0	4065
Forward Funding			2000			-2000	
Total Project Cost	17	3154	12100	9468	5876	354	30970

Funding need broken out by source

$2M in forward funding introduced to alleviate FY03 need
$1M forward funding in hand, additional ~ $2.1M in process
FY06 contains only FF payback

Project Funding in AY k$

Includes G&A, contingency, & escalation

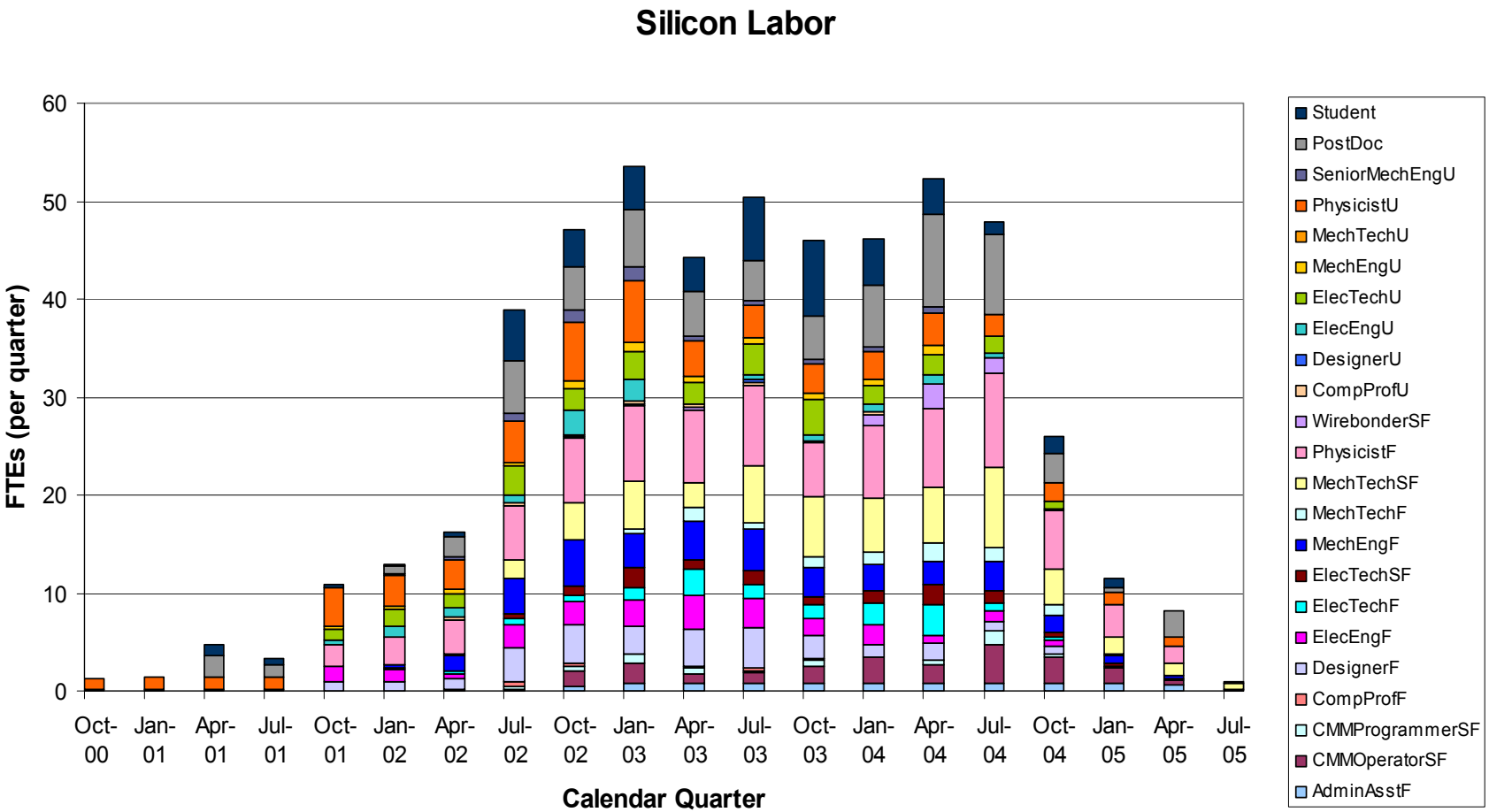
Total Project Cost In AY k$	FY01	FY02	FY03	FY04	FY05	FY06	TOTAL
Silicon (incl. Cont + G&A)	17	1326	8963	6382	3428	354	20470
Trigger (incl. Cont + G&A)	0	453	1423	2142	676	0	4693
Online (incl. Cont + G&A)	0	0	84	418	1002	0	1503
Administration (incl. Cont + G&A)	0	0	507	527	770	0	1803
Total Project	17	1778	10977	9468	5876	354	28470
R&D (incl. Cont + G&A)	0	1376	1123	0	0	0	2499
Total Project Cost	17	3154	12100	9468	5876	354	30970
Project Funding in AY k$	FY01	FY02	FY03	FY04	FY05	FY06	TOTAL
DOE EQ	0	3500	4131	8588	5832	2354	24406
DOE R&D	0	1499	1000	0	0	0	2499
In Kind - Foreign	0	258	267	70	1	0	597
In Kind - MRI silicon	17	1326	811	306	0	0	2460
In Kind - MRI trigger	0	0	114	474	0	0	588
In Kind - US base	0	194	153	30	43	0	420
Total In-Kind contributions	17	1778	1345	880	44	0	4065
Forward Funding	0	0	2000	0	0	-2000	0
Total Funding	17	6777	8477	9468	5876	354	30970

Laboratory guidance:

- 7,632k EQ in FY03 (includes FY02 carry-over)
- 2,499k total R&D for FY02+FY03 (excess carried over)

Project meets FY03 Laboratory guidance
Contingency profile adjusted to reflect anticipated project need

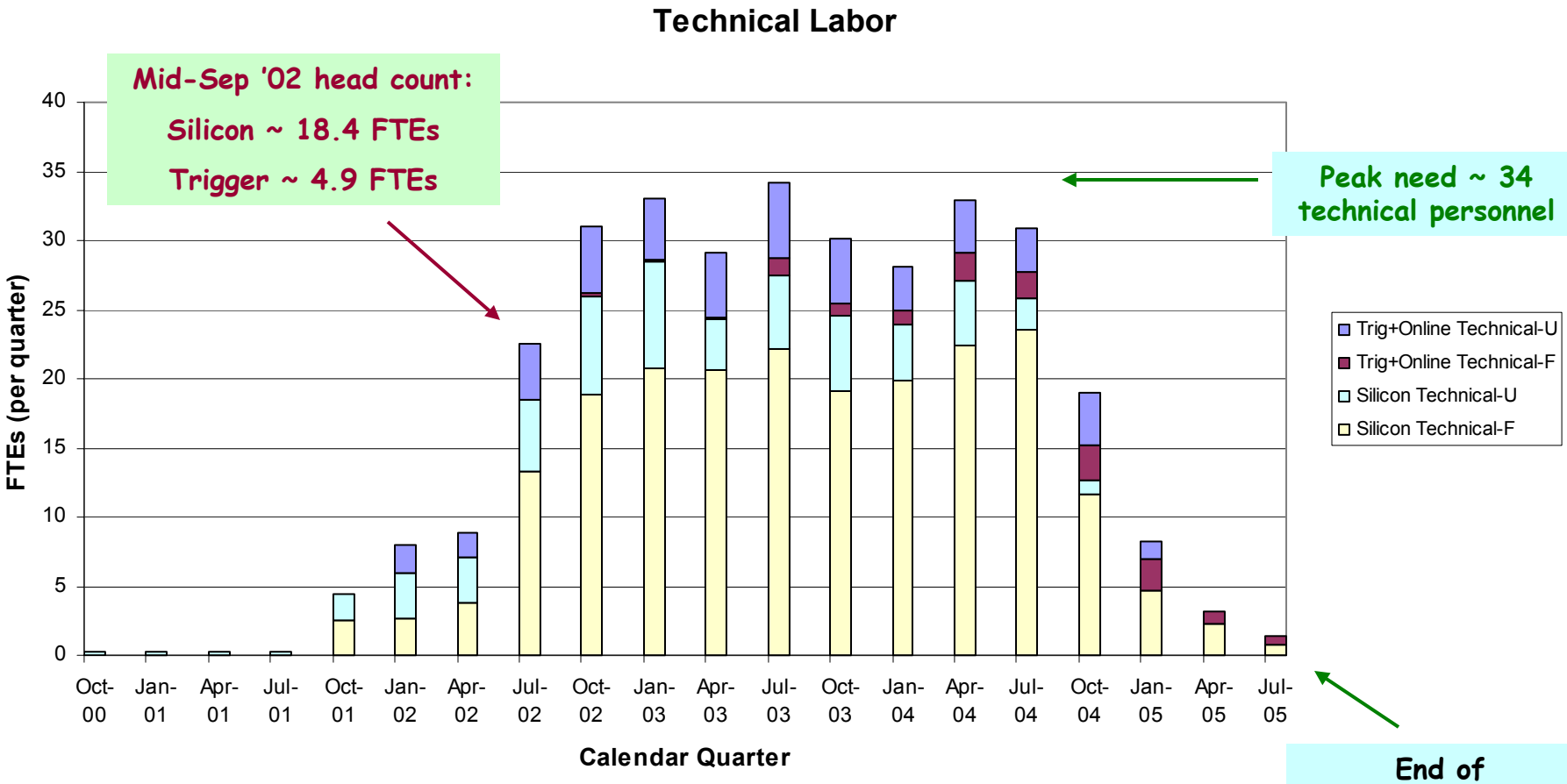
Total Silicon Labor



Includes all personnel, all categories - physicists, technical, and administrative – required to deliver silicon detector

Base need only - contingency not included

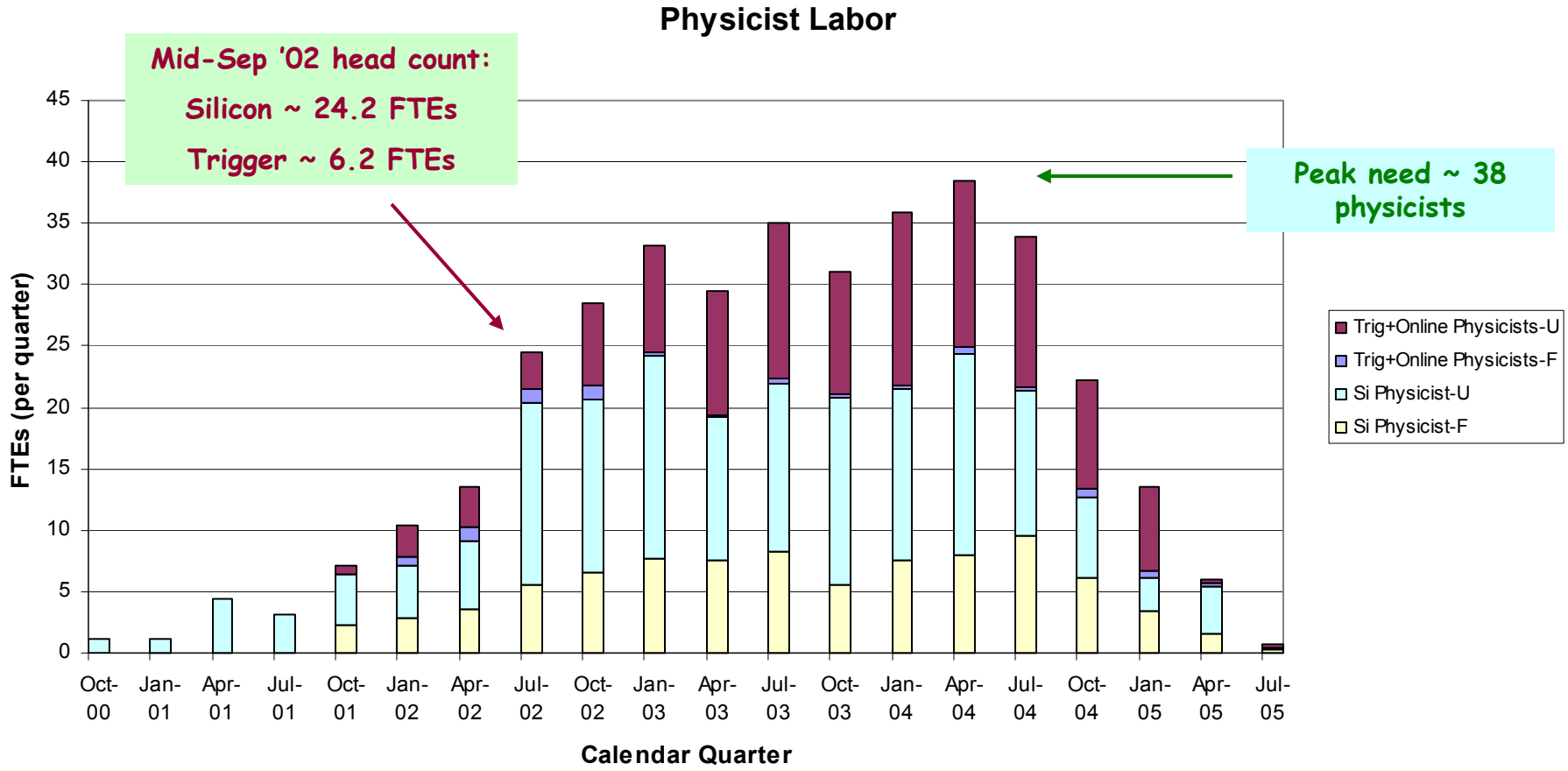
Total Technical Labor



End of production/testing. Installation covered in WBS 1.1.5

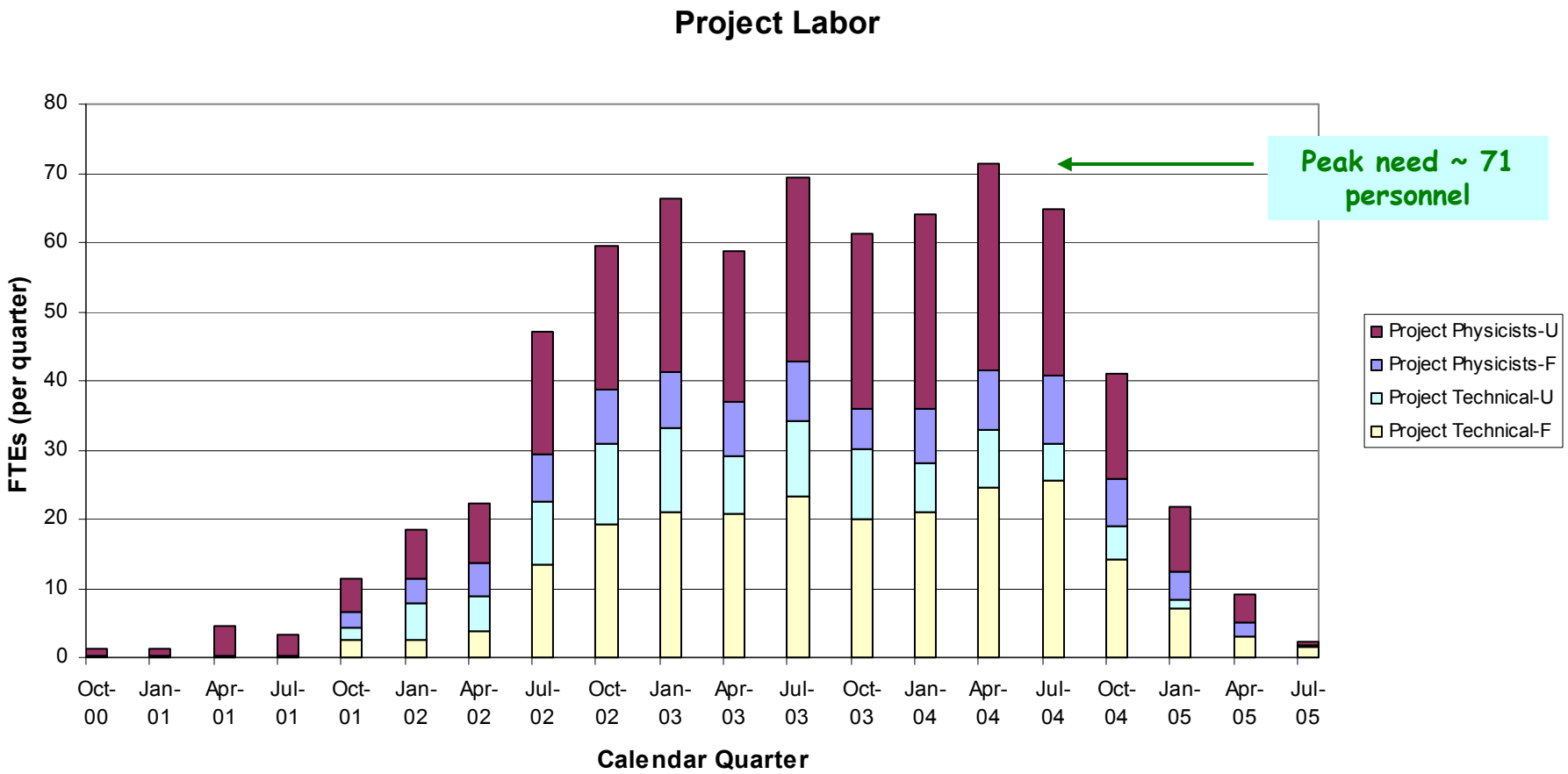
Technical labor required to deliver silicon and trigger+online projects, divided into Fermilab and university components

Total Physicist Labor



Physicists required to deliver silicon and trigger+online projects, divided into Fermilab and university components

Total Project Labor



Total required to deliver silicon and trigger+online projects, divided into Fermilab and university components