U.S. Department of Energy

Office of Science

DOE – HEP Personnel Count (FTE) for FY03

Physics Research (University) Program

We counted FTE scientists working on each project that were funded by DOE-HEP University Program

How people are counted

- people are subdivided by % time on each project
- academic faculty funded for 2 months summer salary are counted as 1 FTE (1 mo. = ½ FTE) since full research time is funded by DOE-HEP
- postdocs/research scientists/grad students that are funded full time for the full year are counted as 1 FTE

Who is in the count:

- people funded by DOE University Program, incl. OJI & ADR are counted
- “faculty” are teaching faculty that are supported by the university for 9 months
- “research scientist” is adjunct faculty, research faculty, visitors, research scientist, staff scientist, etc etc (not a postdoc but not full teaching faculty)

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Who is NOT in the count:

- beginning grad students on TA's, University or other funds are not counted
- postdocs/research scientists on startup, university or other funds
- faculty not funded on the grant, e.g. on startup or emeritus
- people (incl. scientists) supported on project funds are not counted
- technicians, engineers, computer professionals

Caveats and Other Things to Remember:

- Obtained information from proposal, program manager's notes, budget sheets values aren't exact!!!
- Reflects what the groups planned to work on when they were funded in FY03 – note that different grants come due at different times of the year!
- We could fund ½ postdoc on a particular experiment, but they can't find one and instead use it to fund a graduate student and travel – no way to know
- People working on X different projects get split X ways (if we know % on each, then can use it – otherwise divide equally or make estimate)
- Base funds in service tasks are pro-rated to other tasks.

FY03 DOE-funded FTE's in HEP University Program

Program	#faculty	research scientists	postdoc	#grad students
Theory	215.2	3.4	101.4	114.2
Experiments – Accelerator based	282.3	74.7	232.8	314.8
Experiments – Non-Accelerator based	39.7	13.5	28.9	44.1
FNAL – Collider, CDF	47.0	13.8	55.9	82.4
- Collider, Dzero	36.7	4.8	34.6	55.1
FNAL – fixed target + other	21.4	2.0	11.1	22.4
FNAL – MINOS/MiniBoone	25.4	3.2	14.4	13.8
SLAC – BaBar	46.2	6.8	50.6	65.2
SLAC – SLD	0.2			1.0

FY03 DOE-funded FTE's in HEP University Program

Program	#faculty	Research scientists	postdoc	student
BNL – fixed target + RHIC	4.0	2.1	4.8	4.4
CERN – Atlas, CMS	57.6	32.5	38.9	18.8
CERN – NA48, L3, OPAL	1.5		0.4	1.5
Accelerator Future – LC, NF, MC	11.8	1.8	3.6	5.7
JLAB – GlueX, RadPhi	0.8			1.5
LANL – LSND	0.5			
Cornell – CLEO	10.8	1.9	7.6	17.0
Advanced Detector Research	3.3	0.3	0.7	3.2
Japan – Belle, E391	7.3	1.5	6.0	12.0
Astro/Cosmo – space	7.0	7.9	2.8	5.5
Astro/Cosmo – ground, undergnd	19.1	3.8	14.3	20.9
Neutrino – other	3.7	0.5	2.3	1.0
Neutrino – Japan	13.5	2.9	11.4	18.7

DOE – HEP Personnel Count (FTE) for FY03

Physics Research (University) Program

Projects/Experiments

BNL – fixed target + RHIC
g-2, PP2PP, MECO, KOPIO, E865, E852, STAR, PHOBOS

FNAL – fixed target + other
CKM, Focus, HyperCP, KTeV, NuTeV, Selex, E760/835, A0

Neutrino – Japan: SuperK, K2K, KamLand
Neutrino – Fermilab: MINOS & MiniBoone
Neutrino – other: NEMO, EXO, SNO, future

Astro/Cosmo – space: AMS, GLAST, SNAP
Astro/Cosmo – ground, underground:
Auger, Whipple/Granite, VERITAS, HiRes, MACRO, CDMS, Xenon, ANITA, Zeplin, Icarus, LIGO

Other – foreign:
BES(China), SPIN@U70(Russia), CMD2(Russia), ZEUS(DESY), HERA-B(DESY), KLOE(Frascati)

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DOE-funded FTE's in HEP University Program - comparison

Program	FY03 #faculty	FY03 research scientists, postdocs	FY03 #grad students	FY01 #faculty	FY01 research scientists, postdocs	FY01 #grad students
Theory	215.2	104.8	114.2	224.8	110.2	116.4
Experiments – Accelerator based	282.3	307.5	314.8	285.1	332.9	313.0
Experiments – Non-Accelerator based	39.7	42.4	44.1	35.1	35.9	35.3
FNAL – Collider, CDF	47.0	69.5	82.4	48.5	60.1	72.6
- Collider, Dzero	36.7	39.4	55.1	32.2	37.5	41.8
FNAL – fixed target + other	21.4	13.1	22.4	26.0	17.7	32.0
FNAL – MINOS/MiniBoone	25.4	17.6	13.8	17.4	15.5	13.5
FNAL – BTeV	7.4	3.8	2.8	5.5	3.5	.8
SLAC – BaBar	46.2	57.4	65.2	39.1	51.4	49.1
SLAC – SLD	0.2		1.0	1.6	.8	6.0

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DOE-funded FTE's in HEP University Program comparison

Program	FY03 faculty	FY03 Res.Sci + pdoc	FY03 students	FY01 faculty	FY01 Res.Sci + pdoc	FY01 students
CERN – Atlas, CMS	57.6	71.4	18.8	50.3	56.8	12.3
CERN – NA48, L3, OPAL	1.5	.4	1.5	9.7	20.8	24.6
Acc. Future – LC, NF, MC	11.8	5.4	5.7	6.7	6.8	1.5
JLAB – GlueX, RadPhi	0.8		1.5	1.0		2
LANL – LSND	0.5			1.5	.6	
Cornell – CLEO	10.8	9.5	17.0	14.2	18.6	23.8
Advanced Detector R&D	3.3	1.0	3.2	2.5	2.5	.3
Japan – Belle, E391	7.3	7.5	12.0	6.5	6.5	6.0
Other - foreign	4.5	5.0	7.9	11.8	15.8	17.0
Astro/Cosmo – space	7.0	10.7	5.5	5.8	5.5	
*Astro/Cosmo – gnd,u-gnd	19.1	18.1	20.9	22.1	19.3	22.3
Neutrino – other	3.7	2.8	1.0			
Neutrino – Japan	13.5	14.3	18.7	9.9	16.6	15.0

*** Combined with neutrino-other in FY01**

FY01 to FY03 trends

Theory: faculty down a bit, postdocs up a bit, students ~ same
Experiment (accelerator): postdoc/research scientists down, students/faculty about the same
Experiment (non-accelerator): all up a bit

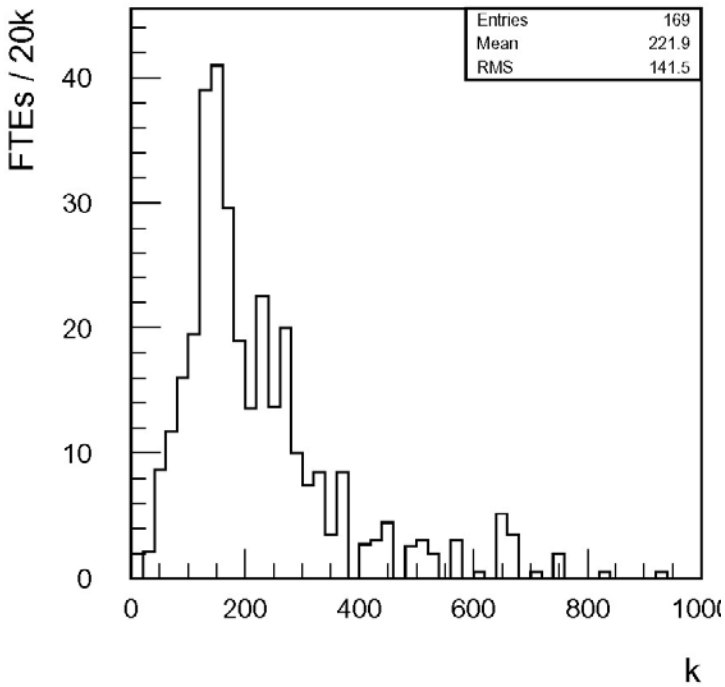
Faculty down
BNL, FNAL-fixed target, CERN-LEP, CLEO, other-foreign,
Faculty ~ same
Dzero, CDF, astro/cosmo
Faculty up
BaBar, MINOS/MiniBoone, BTeV, ATLAS, CMS, Accel-future, neutrinos-Japan

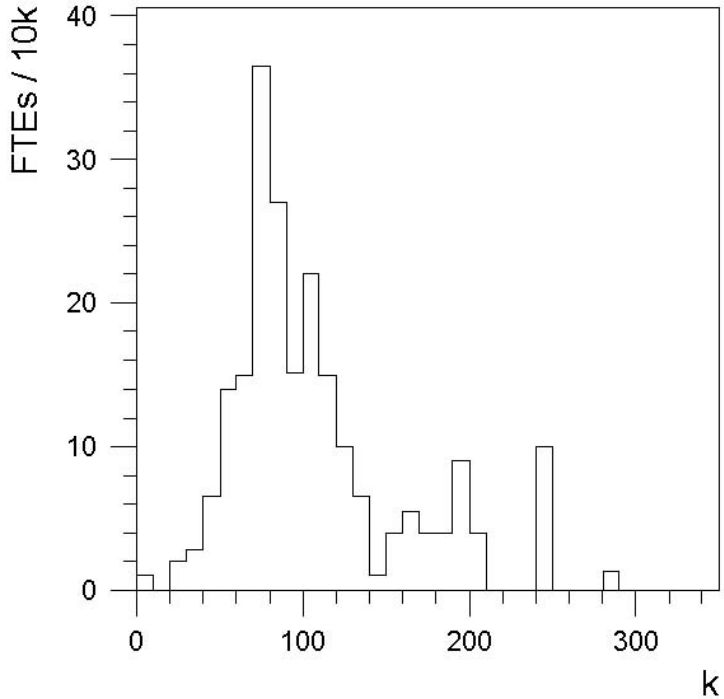
DZero: postdocs é students é
CDF: postdocs é students é
BaBar: postdocs é students é
ATLAS+CMS: postdocs é students é

FY03 to FY01 trends

Program	#faculty	#postdocs/research scientists	#grad students	TOTAL
Theory – FY03	215 (-10)	105 (-5)	114 (-2)	445 (-6)
Theory – FY01	225	110	116	451
Experiment – FY03 Accelerator based	282.3 (-3)	307.5 (-25)	314.8 (+2)	904.6 (-26)
Experiment – FY01 Accelerator based	285	333	313	931
Experiment – FY03 Not Accel. based	39.7 (+5)	42.4 (+6)	44.1 (+9)	126.2 (+20)
Experiment – FY01 Not Accel. Based	35	36	35	106
TOTAL – FY03	537	465.9	472.9	1475.8
TOTAL – FY01	545	479	464	1488

Base Funding per Faculty member





Experiment – by task

Median ~ $180k

Theory – by university

Median ~ $90k