

## Appendix D - NRC Financial Environment

### Budget History

The Project Aim Team conducted an analysis of the Nuclear Regulatory Commission's (NRC) 40 year budget history to assist in assessing the future financial environment. The graph below shows the enacted budget in full-time equivalent (FTE) and dollars over the 40 year history as well as a display of the constant dollars relative to 1975. Additionally, the 40 year average for FTE (3207) is plotted on the graph.

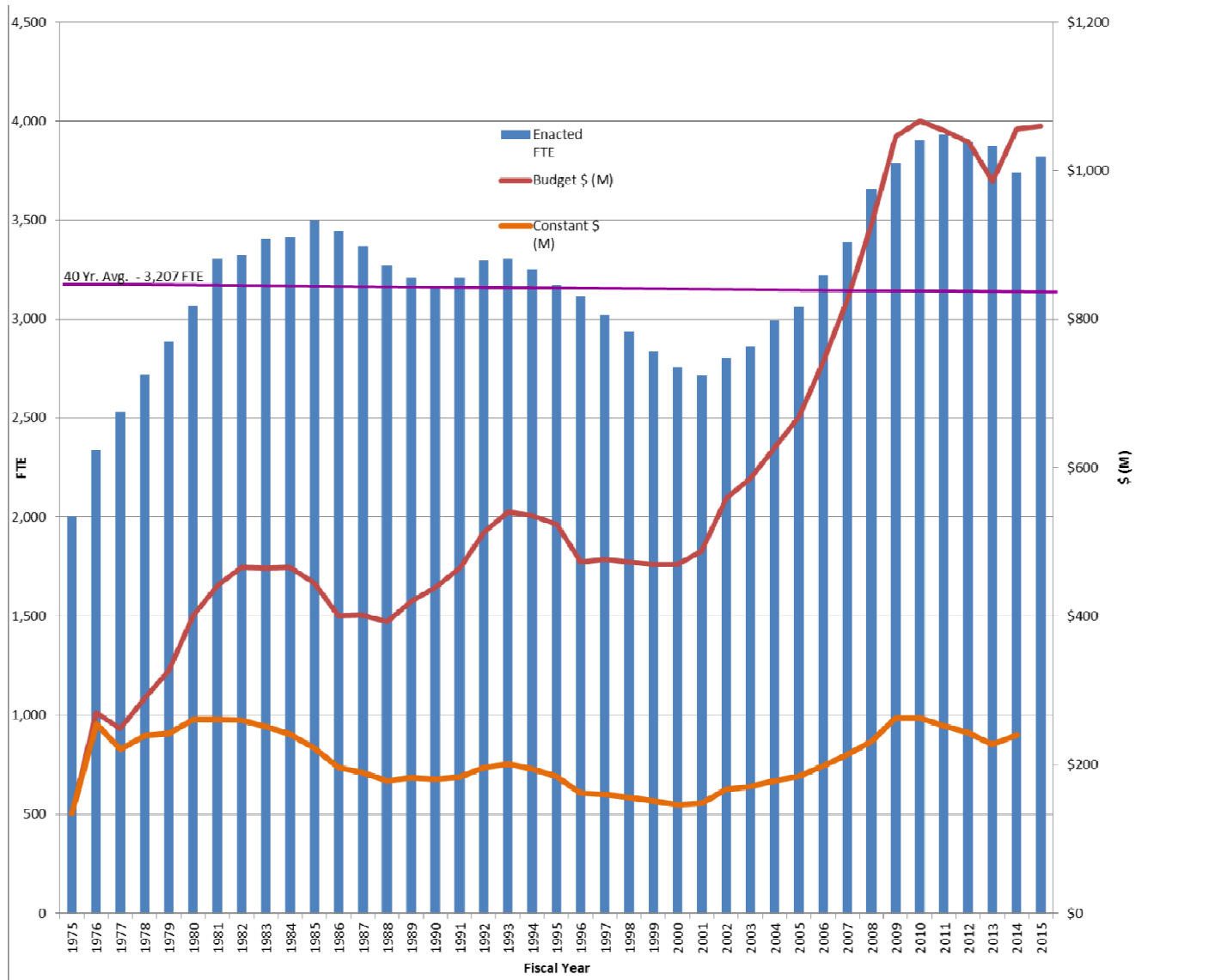


Figure 1 – Historical Agency Budget<sup>i</sup>

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**Resource Highlights**

**Three Mile Island 1979 and Aftermath** – *President Carter signed into law stricter federal safety standards that included elements like mandatory emergency evacuation plans and harsher penalties for violations of federal safety standards by utilities. The NRC hired 146 inspectors and set up a stricter training program for them. As the commission’s budget significantly increased between 1979 and 1981, it hired even more inspectors...A few half-built plants, now forced to meet stricter safety standards, went broke. Building new ones became more expensive, and plans for 100 other plants were canceled because of costs. In 1983, Washington Public Power Supply System abandoned three nuke plants in construction because the projects were plagued by massive cost overruns. One infamous section of piping had to be reinstalled seventeen times. The project’s cost ballooned to \$24 billion and still wasn’t done when the utility defaulted on \$2.25 billion worth of bonds. Episodes like that prompted Forbes, in a 1985 issue, to call the nuke industry “the largest managerial disaster in history.”<sup>ii</sup>*

**NRC Strategic Assessment and Rebaselining effort in 1995 – Statement of Chairman Jackson to Senate EPW**

*“The NRC FY98 budget, when adjusted for inflation, is the lowest in the 23-year history of the NRC. As an example, the current NRC research budget has been reduced by approximately 80% over the past 17 years. Since FY94, the NRC has reduced Senior Executive Service managerial positions by 16 percent, from 220 to 185. We have improved the overall supervisor-to-employee ratio, and we are striving to reach our goal of 1:8 by the end of the next fiscal year...The three years since the initiation of the NRC Strategic Assessment and Rebaselining effort in 1995 have been a time of self-evaluation, as we have prepared to realign our regulatory policies and programs in order to improve our own effectiveness and efficiency, as well as to position the agency for changes in the regulated environment, such as those resulting from electric utility deregulation and restructuring.”<sup>iii</sup>*

**2000**

- The new Reactor Oversight Process (ROP) is launched. ROP is firmly anchored in the NRC's mission to ensure public health and safety in the operation of commercial power plants. Emergency preparedness is identified as one of the seven cornerstones of safety.

**September 11, 2001**

- FY 2002 included a \$36 million supplemental appropriation in response to 9/11.
- The NRC issues Orders to all 104 commercial nuclear power plants to implement interim compensatory measures for the high-level terrorist threat environment. Included in these Orders are items addressing Emergency Preparedness in the “post-9/11” environment.

- Other increases in FY 2002 - 2004 include FTE for homeland security (HLS), new reactor licensing, reactor technical training, and reactor license renewal
- Office of Nuclear Security and Incident Response (NSIR) office established in April, 2002

### **FY 2005**

- Includes \$30 million and 56 FTE for High-level Waste (HLW)

*Energy Policy Act 2005 contains a number of new provisions that are designed to enhance security at nuclear facilities in response to the terrorist attacks of September 11, 2001. Section 651 directs the NRC to perform security evaluations at each nuclear power plant and other covered facilities at least once every three years. These security evaluations must include "force-on-force" exercises in order to help enhance the protection of the facility from armed intruders. 20 EPA Act 2005 further requires the NRC to initiate a rulemaking to revise its "design basis threat," the range of attacks against which a nuclear facility must be protected. EPA Act 2005 also requires the NRC to appoint a federal security coordinator in each of the NRC's four Regions to coordinate security measures among private security forces at each facility and communicate with federal, state, and local authorities regarding potential threats.<sup>iv</sup>*

### **FY 2006**

- Includes FTE increase of 175 to support reactor licensing and reactor inspection.

### **FY 2007- 2008**

- \$180 million including 430 FTE mainly for new reactors – 20 combined operating licenses (COL) for 29 new nuclear power reactors expected.
- Increases in corporate support for Region I move; Seat Management contract cost escalations, telecommunications replacement, desktops, security (Information Personnel Security System and headquarters access), and HLS Data Network.

### **FY 2009**

- \$119 million including 142 FTE mainly for reactor oversight for license renewal activities and generic safety inspections, complex licensing activities related to NFPA 805, revise generic environmental impact statement; Materials and Waste program increases for review of two new uranium enrichment facility license applications and existing fuel facilities, web-based licensing and the National Source Tracking System (NSTS), and HLW repository.
- Increases for NSTS Seat Management contract, enhanced information security to meet new requirements and Government mandates, HLS Data Network migration, and Safeguards Local Area Network and Electronic Safe Project.

### **FY 2010**

- \$21 million including 113 FTE for new reactor licensing application reviews, reactor oversight enforcement and allegation, Web-based licensing and NSTS, and HLW

## Integrated University Program

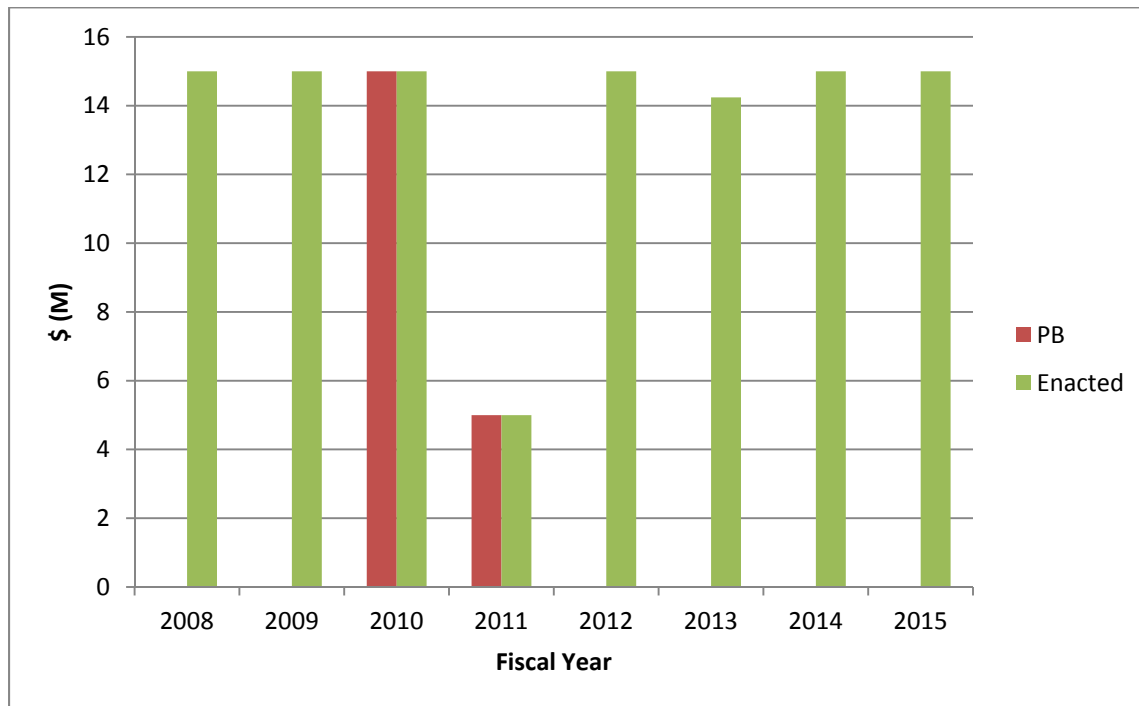


Figure 2 – History of the Integrated University Program in the NRC's budget

Beginning with the agency's FY 2008 appropriation, the NRC has been required to obligate funds for the Integrated University Program (IUP). The IUP has been authorized by Congress through FY 2019. While the agency has tried over the past several years to get funds for this program added to the budget, it has only succeeded in two of the past seven budget cycles (FY 2010 - \$15.0 million and FY 2011 - \$5.0 million.) The main challenge this represents to the agency is that Congress will continue, at least for the next several budget cycles, to require the NRC to obligate \$15.0 million for the IUP but, will not add resources to our appropriation. This constraint requires the agency to cut mission direct contract dollars in order to find funding to cover IUP grants.

## Agency Overhead

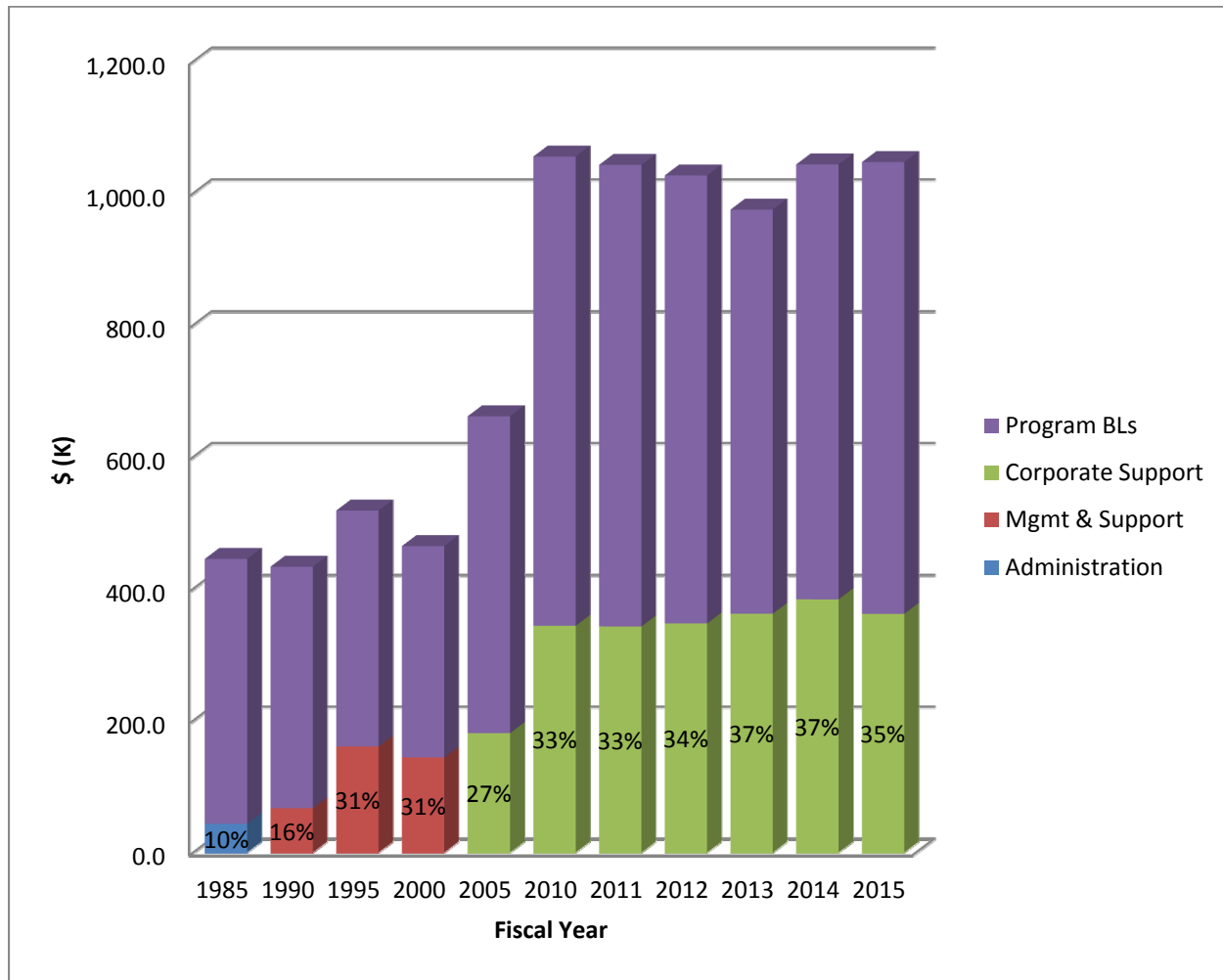


Figure 3 – Historical Agency Overhead<sup>v</sup>

Relative to the total budget, resources for the agency’s overhead costs have been steadily increasing with the exception of FY 2015, which shows a 2% decrease from FY 2014. What the NRC has referred to as “overhead” throughout the agency’s history has changed over time based on how the agency has defined the concept of support activities. Currently overhead is comprised of resources contained in the Corporate Support and Office Support Business Lines. This includes resources of \$96.8 million in Information Technology (IT), out of a total agency IT request of approximately \$154 million.<sup>vi</sup> In FY 1985 and FY 1990, the majority of the resources contained in the “Program Direction and Administration” and “Nuclear Safety Management & Support” sections of the agency’s Congressional Budget Justifications (CBJ) included mostly FTE identified as overhead. By FY 1995, the NRC’s resource request included an increase in the amount of resources identified as overhead as the agency began to include more types of activities including policy support, training, and grants. By FY 2005, activities labeled as “infrastructure” included in the “Management and Support” section of the CBJ were firmly established and continue to the present day, with the exception of a few recent additions, i.e.

Acquisitions and Outreach Product Lines. In an effort to bring more transparency to the agency's support costs, a new budget structure was created and implemented in FY 2011. As part of the re-structuring, some resources that had previously identified as programmatic were moved to the newly created Office Support Business Line. In addition to all supervisory FTE being added to the Office Support Business Line, some additional resources previously contained within the program business lines, i.e., International Activities, were added to the Corporate Support Business Line. The creation of the Office Support Business Line, along with the transfer of resources to Corporate, had the unintended consequence of increasing those resources that the agency identifies as overhead. Beginning with the FY 2016 Planning, Budget, and Performance Management (PBPM) process, and continuing with the FY 2017 budget cycle, the agency is attempting to more appropriately categorize resources labeled as overhead. With the FY 2016 budget cycle, supervisory FTE that are part of the agency's mission have been moved back in to the relevant business line that they support. For the FY 2017 PBPM, the agency will continue with its efforts to identify resources that should not be labeled as overhead. Some of the ideas that the Office of the Chief Financial Officer is looking at are the transfer of administrative assistants to the appropriate program business lines, as well as an examination of mission IT resources that would be better placed in the program area.

### Conclusions

Prior to the expected nuclear renaissance, the FY 2005 FTE level (3061) was below the 40 year average (3,207) and increased by 870 FTE through FY 2011. However, for 15 of the 25 years prior to FY 2005, the NRC FTE levels were higher than this average. The agency budget increased in areas other than new reactors since 2005, as noted above. So while the nuclear renaissance did not take place as expected, the NRC budget in FY 2020 would not be at the same level as prior to the expected growth due to increases in licensing, security, international activities, fixed costs associated with information technology and physical plant as well as increased statutory, regulatory, and administrative requirements affecting all government agencies. More realistically, the NRC can expect to be smaller by approximately 10% (for example, a budget of 3400 FTE and \$900 million) considering projected workload, the end of actions related to the Fukushima lessons learned, elimination of the licensing backlog, and the changed business practices recommended in the report. The agency will manage potential Sequestration cuts through 2020 within the reduced resources. The actual budget will be formulated, justified, and adjusted as necessary, but this target provides a useful aim point for longer term agency planning and a driver for improving efficiency.

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<sup>i</sup> Enacted agency budgets as contained in historical Congressional Budget Justification

<sup>ii</sup> <http://www.thenation.com/article/159386/after-three-mile-island-rise-and-fall-nuclear-safety-culture>

<sup>iii</sup> <http://www.epw.senate.gov/105th/nrca-7-3.htm>

<sup>iv</sup> <http://eba-net.org/sites/default/files/docs/655-672.pdf>

<sup>v</sup> Enacted agency budgets as contained in historical Congressional Budget Justification

<sup>vi</sup> FY 2015 President's Budget