NASA’s Pathways Program

Presentation to the NAC Institutional Committee

November 17, 2015

Office of Human Capital Management
Workforce Planning and Analysis

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What We Will Cover Today

- Establishment of Pathways
- Components of the Pathways Program
  - Pathways Intern Program
  - Pathways Recent Graduate Program
  - Presidential Management Fellows (PMF) Program & PMF-STEM
- Key Differences between Pathways and Student Career Experience Program (SCEP)
- Demographics
  - Hires by FY
  - Veterans Hiring
  - Hires by Center
  - Conversion Rates by Center
  - Demographic Changes
Establishment of Pathways

<table>
<thead>
<tr>
<th>Abolished Programs</th>
<th>Current Program</th>
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</thead>
<tbody>
<tr>
<td>Student Career Experience Program (SCEP) [a.k.a., “Co-op”, which it officially replaced 12-16-1994]</td>
<td>Pathways Intern Program – Appointments with Eligibility for Conversion</td>
</tr>
<tr>
<td>Student Temporary Employment Program (STEP)</td>
<td>Pathways Intern Program – “NTE” Appointments with No Eligibility for Conversion</td>
</tr>
<tr>
<td>Federal Career Intern Program (FCIP)</td>
<td>Pathways Recent Graduate Program</td>
</tr>
<tr>
<td>Presidential Management Fellows Program</td>
<td>Pathways Presidential Management Fellows Program</td>
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</table>

- Critics of the FCIP said it grew beyond its original scope and was being abused. Federal unions alleged that some agencies used FCIP to block veterans from federal jobs, and the Merit Systems Protection Board agreed in a 11-2-2010 ruling.
- Executive Order 13562 "Recruiting and Hiring Students and Recent Graduates," (12-27-2010) abolished SCEP, STEP, and FCIP; it created the Pathways Program.
- Final rules for Pathways were issued in Federal Register Vol 77, No 92 (5-11-2012).
- OPM authorized NASA to implement the new Pathways Program in June 2012.
Pathways Intern Program

- The NASA Pathways Intern Program is for current students and individuals accepted for enrollment in a qualifying educational program.
- The NASA Pathways interns are enrolled in a variety of educational institutions and have paid opportunities to work here and explore Federal careers while still in school.
- This program exposes students to jobs in the Federal civil service by providing meaningful development work at the beginning of their career, before their career paths are fully established.
- Most interns are eligible for conversion to career-conditional appointments in the Federal service upon graduation and completion of program requirements. Others, who are given temporary (a.k.a. “NTE”) appointments, are not eligible to convert (these positions are typically clerical).

**Eligibility Requirements:**

- NASA Pathways interns meet applicable qualification requirements, either (1) OPM qualification standards; or, (2) NASA's Aeronautics, Scientific, and Technical (AST) qualification standards for engineering and science positions.
- Interns must maintain at least an overall 2.9 GPA.
- Interns are United States citizens.
Pathways Recent Graduates Program

- The NASA Pathways Recent Graduates Program is for individuals who have recently graduated from qualifying educational institutions or programs.
- This developmental program lasts one year. After one continuous year of service and having demonstrated successful job performance, participants may non-competitively convert to term or permanent competitive service jobs.
- The Program provides opportunity to individuals who lack experience to participate in jobs in the Federal civil service at the beginning of their careers, before their career path is fully established.

Eligibility Requirements:

- Applicants must have completed, within the previous 2 years, a qualifying associates, bachelors, masters, professional, doctorate, vocational or technical degree or certificate from a qualifying educational institution. A veteran, who, due to military service obligations was unable to apply within 2 years of receiving their degree, has as much as 6 years after degree completion to apply.
- NASA Recent Graduates meet applicable qualification requirements, either (1) OPM qualification standards; or, (2) NASA's Aeronautics, Scientific, and Technical (AST) qualification standards for engineering and science positions.
- Recent Graduates are United States citizens.
The Pathways Presidential Management Fellows Program is for individuals who have completed a qualifying advanced degree (e.g., graduate or professional degree) within two years of the opening date of the PMF announcement.

- OPM makes eligibility determinations and identifies finalists eligible for consideration.
- PMFs may be appointed at the GS-9, GS-11 or GS-12 level. PMF appointments are limited to two years.
- PMFs may be converted to career/career-conditional appointments upon completion of a rigorous two-year paid program that includes:
  - At least 80 hours of formal, interactive training per year (for a total of 160 hours) that advances the PMF’s competencies in the occupation or functional discipline where they would most likely be placed.
  - At least one rotational or developmental assignment of 4 to 6 months, with management and/or technical responsibilities.
  - Work with a senior-level Mentor.
- NASA collaborated with OPM to develop the “PMF-STEM” track in 2014.

Eligibility Requirements:

- NASA PMFs meet applicable qualification requirements, either (1) OPM qualification standards; or, (2) NASA's Aeronautics, Scientific, and Technical (AST) qualification standards for engineering and science positions.
- PMFs are United States citizens.

Eligibility Requirements:

- NASA PMFs meet applicable qualification requirements, either (1) OPM qualification standards; or, (2) NASA's Aeronautics, Scientific, and Technical (AST) qualification standards for engineering and science positions.
- PMFs are United States citizens.
Key Differences: Pathways vs SCEP (“Co-op”)

- Public Notice and competitive announcement process
- Veterans Preference
- Staffing Process Changes
  - Significant increase in staffing process complexity and workload
  - Significant increase in applicants (approximately 100 applicants for each Pathways Intern selection)
  - Widespread staff changes at Centers required to adjust to new process
- NASA Staffing & Recruiting System (STaRS) Changes
  - Significant enhancements were required to STaRS to accommodate Pathways
  - Electronic case file management needed to support audits
- High degree of scrutiny from Office of Personnel Management auditors
- Transition from “recruiting” to “outreach” (hiatus in on-the-spot hiring at campus recruiting events)
- Changed Relationships with Universities
  - Formal Agreements between NASA and universities are no longer required
  - Weakened partnerships between NASA and key academic partners
  - Limited ability to target hiring at HBCUs, HACUs, etc.
- Direct hiring from NASA Intern, Fellowship, Scholarship (NIFS) no longer possible
Demographic Overview

- **NASA Pathways Intern Program**
  - Hires about 150-200 interns per year
  - Roughly 2/3 of interns are S&E, 1/3 business/mission support
  - 40% graduate interns, 60% undergraduate interns
  - Receives about 15,000-20,000 applications per year
  - Converts about 60% of interns within four years of hire
  - Currently has nearly 500 interns, enrolled at 200 universities, in 46 states + DC

- **Changes in demographics: SCEP to Pathways**
  - Much more likely to hire veterans (2% in FY11 to 24% in FY15)
  - Older average age of hire (from 24.5 in FY11 to 28 in FY15)
  - Fewer female hires, particularly in S&E fields (from 36% in FY11 to 23% in FY15 in S&E, from 45% in FY11 to 34% in FY15 overall)

- **Note**: All subsequent slides about Pathways Interns are addressing conversion-eligible interns, not Intern NTEs
## NASA “Co-Op” Hires by Fiscal Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Total NASA Hires</th>
<th>Co-Ops as a Percent of Total Hires</th>
<th>Co-Op Hires*</th>
<th>Co-Op’s Onboard beginning of FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>1108</td>
<td>15%</td>
<td>161</td>
<td>430</td>
</tr>
<tr>
<td>2009</td>
<td>853</td>
<td>28%</td>
<td>235</td>
<td>420</td>
</tr>
<tr>
<td>2010</td>
<td>941</td>
<td>18%</td>
<td>168</td>
<td>508</td>
</tr>
<tr>
<td>2011</td>
<td>653</td>
<td>28%</td>
<td>182</td>
<td>512</td>
</tr>
<tr>
<td>2012</td>
<td>638</td>
<td>37%</td>
<td>234</td>
<td>478</td>
</tr>
<tr>
<td>2013</td>
<td>790</td>
<td>27%</td>
<td>210</td>
<td>486</td>
</tr>
<tr>
<td>2014</td>
<td>507</td>
<td>44%</td>
<td>227</td>
<td>480</td>
</tr>
<tr>
<td>2015</td>
<td>570</td>
<td>35%</td>
<td>201</td>
<td>490</td>
</tr>
</tbody>
</table>

*A small proportion (< 5%) of co-ops in student outcome database come from non-hiring actions, most commonly conversions to SCEP/Pathways.*
Veteran Hiring

Proportion of Veteran SCEP/Pathways Hires

- NASA transitioned to Pathways program in the 4th quarter of FY12
- Substantial increase in veteran hiring
### SCEP/Pathways Hires by Center, FY2005-FY2015

<table>
<thead>
<tr>
<th>Center</th>
<th>S&amp;E</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC</td>
<td>108</td>
<td>16</td>
</tr>
<tr>
<td>ARC</td>
<td>43</td>
<td>38</td>
</tr>
<tr>
<td>GRC</td>
<td>189</td>
<td>60</td>
</tr>
<tr>
<td>GSFC</td>
<td>242</td>
<td>78</td>
</tr>
<tr>
<td>HQ</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>JSC</td>
<td>374</td>
<td>159</td>
</tr>
<tr>
<td>KSC</td>
<td>221</td>
<td>127</td>
</tr>
<tr>
<td>LARC</td>
<td>129</td>
<td>38</td>
</tr>
<tr>
<td>MSFC</td>
<td>160</td>
<td>49</td>
</tr>
<tr>
<td>SSC</td>
<td>17</td>
<td>11</td>
</tr>
</tbody>
</table>

Variability in overall student hiring, and S&E/Other student hiring mix. Most centers tilt towards S&E hiring in student programs by ~ 2 to 1.
Conversion Rates by Center: FY2005-FY2012 Hires

- AFRC (79)
- ARC (68)
- GRC (180)
- GSFC (217)
- HQ (4)
- JSC (387)
- KSC (240)
- LaRC (88)
- MSFC (148)
- SSC (14)
- NASA (1425)

Hiring Outcomes
- Current Intern
- Loss before Conversion
- Converted
Questions
### Demographic Changes in Intern Hiring (SCEP to Pathways)

#### All

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Minority</th>
<th>Age</th>
<th>S&amp;E</th>
<th>Grad Sch.</th>
<th>25+</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>43%</td>
<td>38%</td>
<td>24.6</td>
<td>66%</td>
<td>35%</td>
<td>30%</td>
<td>182</td>
</tr>
<tr>
<td>2012</td>
<td>44%</td>
<td>40%</td>
<td>25.0</td>
<td>62%</td>
<td>38%</td>
<td>34%</td>
<td>234</td>
</tr>
<tr>
<td>2013</td>
<td>37%</td>
<td>33%</td>
<td>26.5</td>
<td>70%</td>
<td>37%</td>
<td>45%</td>
<td>210</td>
</tr>
<tr>
<td>2014</td>
<td>35%</td>
<td>38%</td>
<td>26.1</td>
<td>80%</td>
<td>33%</td>
<td>43%</td>
<td>227</td>
</tr>
<tr>
<td>2015</td>
<td>35%</td>
<td>35%</td>
<td>27.9</td>
<td>71%</td>
<td>40%</td>
<td>53%</td>
<td>201</td>
</tr>
<tr>
<td>Delta '11 to '15</td>
<td>-8%</td>
<td>-3%</td>
<td>3.3</td>
<td>4%</td>
<td>5%</td>
<td>24%</td>
<td>19</td>
</tr>
</tbody>
</table>

#### S&E Intern Hires

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Minority</th>
<th>Age</th>
<th>Grad Sch.</th>
<th>25+</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011 (SCEP)</td>
<td>34%</td>
<td>37%</td>
<td>23.1</td>
<td>29%</td>
<td>22%</td>
<td>121</td>
</tr>
<tr>
<td>2012 (mostly SCEP)</td>
<td>35%</td>
<td>35%</td>
<td>23.9</td>
<td>31%</td>
<td>27%</td>
<td>144</td>
</tr>
<tr>
<td>2013 (Pathways)</td>
<td>29%</td>
<td>31%</td>
<td>25.6</td>
<td>34%</td>
<td>41%</td>
<td>146</td>
</tr>
<tr>
<td>2014 (Pathways)</td>
<td>31%</td>
<td>35%</td>
<td>25.0</td>
<td>35%</td>
<td>38%</td>
<td>181</td>
</tr>
<tr>
<td>2015 (Pathways)</td>
<td>23%</td>
<td>30%</td>
<td>26.5</td>
<td>42%</td>
<td>50%</td>
<td>142</td>
</tr>
<tr>
<td>Delta '11 to '15</td>
<td>-11%</td>
<td>-8%</td>
<td>3.4</td>
<td>13%</td>
<td>28%</td>
<td>21</td>
</tr>
</tbody>
</table>