Data Standards - Best Practices

Overview of Presentation

• Brief description of statewide collaborative partnership
• North Carolina’s statewide approach to implementing electronic high school transcripts (eHSTs) using national standards
• System infrastructure overview focusing on current data standards and usage
• Sustainability
• Future Developments
Statewide Collaborate Partnership

- CFNC is a joint effort of the North Carolina State Education Assistance Authority, College Foundation, Inc., and Pathways of North Carolina.

- The Pathways partnership was requested by the UNC Board of Governors, funded by the 1999 General Assembly, and includes the:
  - NC Department of Public Instruction (K-12)
  - NC Community College System (58)
  - NC Independent Colleges and Universities (36)
  - UNC System (16)
Statewide Collaborate Partnership

501(c)(3) nonprofit - administers grants, loans and savings program on behalf of the state

State agency responsible for statewide college aid programs – grants scholarships, loans, 529 savings

State-funded K-16 partnership (NCDPI, NCCCS, NCICU, UNC) administered by UNC General Administration

CFNC.org
North Carolina – Statewide Approach

• North Carolina’s eHST *initiative* began on/before 1999 - funding provided for the public schools to convert to a common SIS System, “NCWISE”

• Requirement of funding -> electronic high school transcripts (eHSTs)

• Capitalize on resources & technology
  - Common SIS System (NCWISE)
  - NC Standardized HS Transcript
  - Central Repository
Students can submit online admissions applications to any of the 110 participating campuses on CFNC.org

Electronic transcripts can be requested with online app submittal or within Transcript Manager
Transcript Manager - student provides login credentials and data criteria before request can be made.

Data provided for the request:
- First and Last Name
- Date of Birth
- NCWISE Student ID
- Gender
- High School
- E-mail Address
Transcript Manager - provides tracking

• All transcript activity (current and final)
System Infrastructure Overview

* 

3 NCWISE data repositories

2 Electronic High School Transcript Processes

1. NCDPI Main – host for 480 public/charter HSs (eHST process uses ANSI X12 EDI transaction sets with the UT Austin SPEEDE Server)
2. Wake County – host for 26 public HSs (eHST process uses PESC XML high school transcript schema and web services)
3. Charlotte-Mecklenburg County – host for 32 public HSs (eHST process not yet implemented)
System Infrastructure Overview
NCDPI - Standards

- ANSI X12 data standards:
  - TS146
  - TS147
  - TS130
  - TS131
  - TS997

- UT SPEEDE Server
- 2 Trading Partners – DPI & CFNC
- High School transcript requests from 440 high schools; delivered to 110 NC Colleges and Universities via CFNC.org
Electronic Document Exchange - Usage
High School Transcripts – NCDPI Main Data Center

System went live in 2003 with 33 high schools – added schools to CFNC Transcript system as they were converted to NCWISE

- Fall 2003 – 33 high schools
- Fall 2009 – 440 high schools

- Process approximately 5,200 transcripts / month
- Heavier traffic in fall and early summer
## Electronic Document Exchange
### High School Transcripts – NCDPI Main Data Center

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current transcript request created &amp; processed with about a 24-72 hour turnaround time from request to delivery</td>
<td>System is complex and sometimes difficult to track errors</td>
</tr>
<tr>
<td>Final transcript request automatically created – released when final grades and diploma received dates are posted at the high school level</td>
<td>Increase in turnaround time when errors occur</td>
</tr>
<tr>
<td>Student Tracking</td>
<td>Final transcript requests get created BEFORE system knows the current transcript processed successfully – creates additional unnecessary work and bandwidth on the system</td>
</tr>
<tr>
<td>Counselor Tracking</td>
<td>Increased usage over the years – system not equipped to handle large files</td>
</tr>
</tbody>
</table>
System Infrastructure Overview
Wake County Public School System (WCPSS) - Standards

- PESC XML high school transcript schema version 1.0
- Web Services for point-to-point delivery
- 2 Trading Partners – WCPSS & CFNC
- High School transcript requests from 27 high schools; delivered to 110 NC Colleges and Universities via CFNC.org
<table>
<thead>
<tr>
<th>Electronic Document Exchange - Usage</th>
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<tbody>
<tr>
<td>High School Transcripts - Wake Co. Data Center</td>
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<tr>
<td>System went live in May 2009 with 8 high schools</td>
</tr>
<tr>
<td>• Fall 2009 – 26 high schools</td>
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<tr>
<td>• Process approximately 2,200 transcripts / month</td>
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<tr>
<td>• Heavier traffic in fall and early summer</td>
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### Electronic Document Exchange
**High School Transcripts – WCPSS**

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<td>Real-time delivery of current transcript</td>
<td>Had to write mapping for XML to EDI to conform to current system</td>
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<tr>
<td>Final transcript request automatically created AFTER successful response from current transcript request</td>
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Electronic Document Exchange
High School Transcripts
Charlotte-Mecklenburg Data Center

- Future development for electronic transcripts
- PESC XML high school transcript schemas and web services infrastructure
System Infrastructure Overview
CFNC.org 110 Participating Colleges & Universities

- 110 Colleges & Universities on CFNC.org
- Authenticated Administrative Center to download CFNC data
  - Prospects
  - Applications
  - Transcripts
- Transcript download formats for colleges

<table>
<thead>
<tr>
<th>Format</th>
<th>Method</th>
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<td>PDF</td>
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<td>TS130</td>
<td>Import to SIS</td>
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<td>PESC XML</td>
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Sustainability

Student interface for high school transcript ordering built on statewide college access web portal that is mostly funded by NC General Assembly

Exclusive Agreement between CFNC and NCDPI for electronic high school transcript processing

PESC and ANSI Standards utilized in all electronic transcript document exchanges

<table>
<thead>
<tr>
<th>ANSI X12 EDI</th>
<th>File Transfer Protocol</th>
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<td>PESC XML Schemas</td>
<td>Web Services</td>
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</table>

CFNC.org
Sustainability (continued)

- Increased usage/volume as high schools are added to the CFNC Transcript System

- Consistent encouragement for use of data standards when enhancements, upgrades and new development occurs
Future Development

Upgrade NCDPI’s EDX system from ANSI X12 and File Transfer Protocol to PESC XML and Web Service technologies

Implement electronic transcripts among the 110 CFNC participating colleges using PESC XML and Web Service technologies

Enhance existing high school electronic transcripts to provide capability to send eHSTs out-of-state
Summary

- Statewide electronic high school transcript system built on college access web portal, CFNC.org, serving over 500 public high schools and 110 colleges and universities
- 3 Trading Partners (CFNC, NCDPI, WCPSS) which are all entities of a unique collaborative partnership that make up CFNC
- Electronic high school transcripts delivered in various formats/standards

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- Future enhancements to develop statewide electronic college transcript system
# Acknowledgements

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<tr>
<th>Name</th>
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